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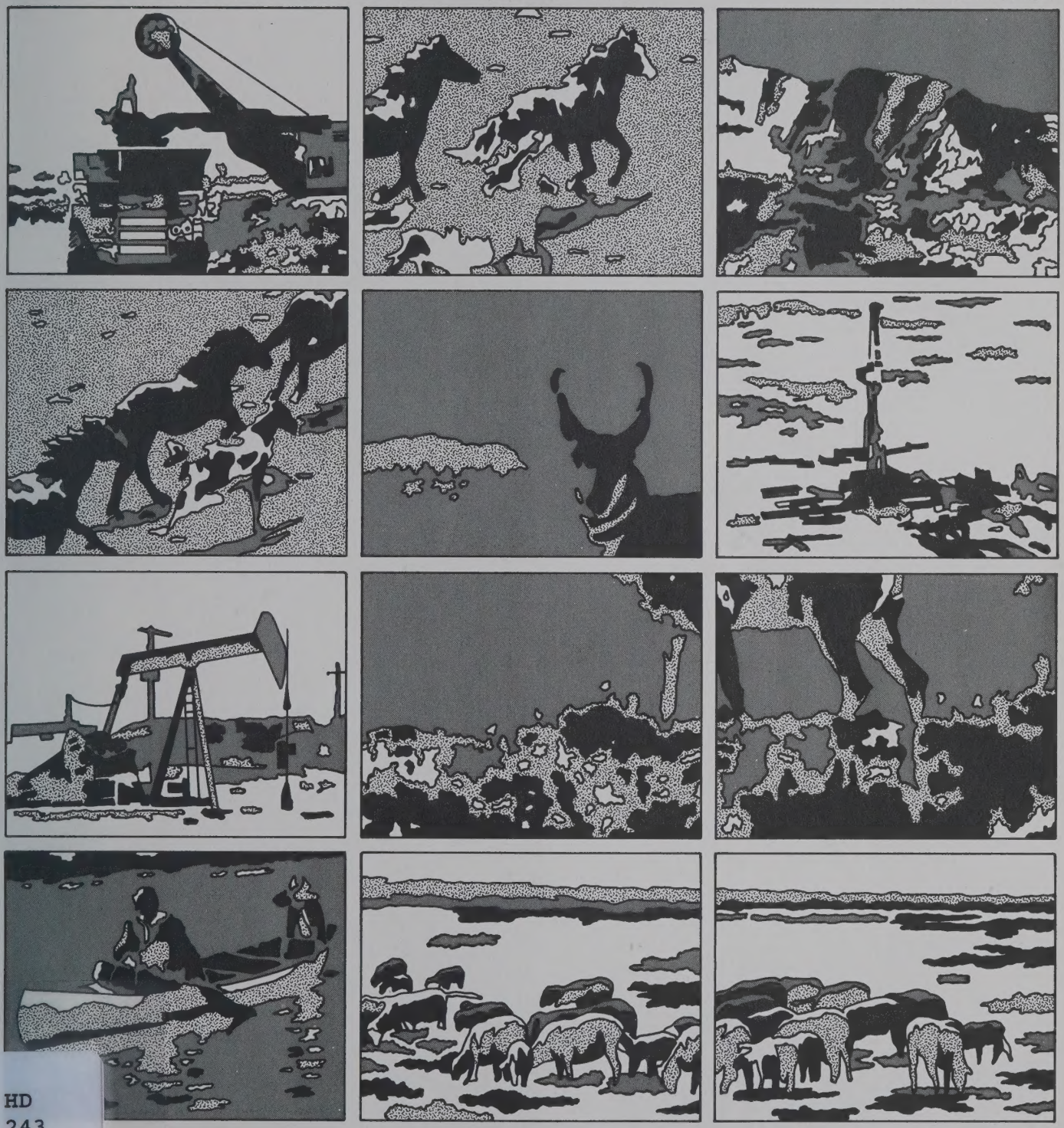
COAL

Amendment to
WYOMING Land Use Decisions

DIVIDE/OVERLAND AREA

Divide and Medicine Bow
Resource Areas
Rawlins District



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BUREAU OF LAND MANAGEMENT

District Office
P. O. Box 670
Rawlins, WY 82301

MAY 1 0 1982

Dear Reader:

This brochure summarizes the Overland and Divide Basin Planning Units Management Framework Plan (MFP) final decisions for the Federal Coal Management Program in the Rawlins District. It also describes the process used to develope these decisions. Because this brochure is a summary, some of the detailed supportive data, including legal land descriptions, are not included. The illustrations included should not be used for detailed analysis or interpretation. Detailed information is available for public review in the Rawlins District Office and the Divide Resource Area office.

The field work supporting this planning effort was performed by BLM personnel in coordination with other Federal, State, and local agencies, industry, and other interest groups. Many organizations and individuals have assisted us in the preparation of these final decisions.

Sincerely yours,

David K. Walters

District Manager

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WYOMING LAND USE DECISIONS
OVERLAND AND DIVIDE BASIN PLANNING UNITS
MANAGEMENT FRAMEWORK PLAN
JULY 1982

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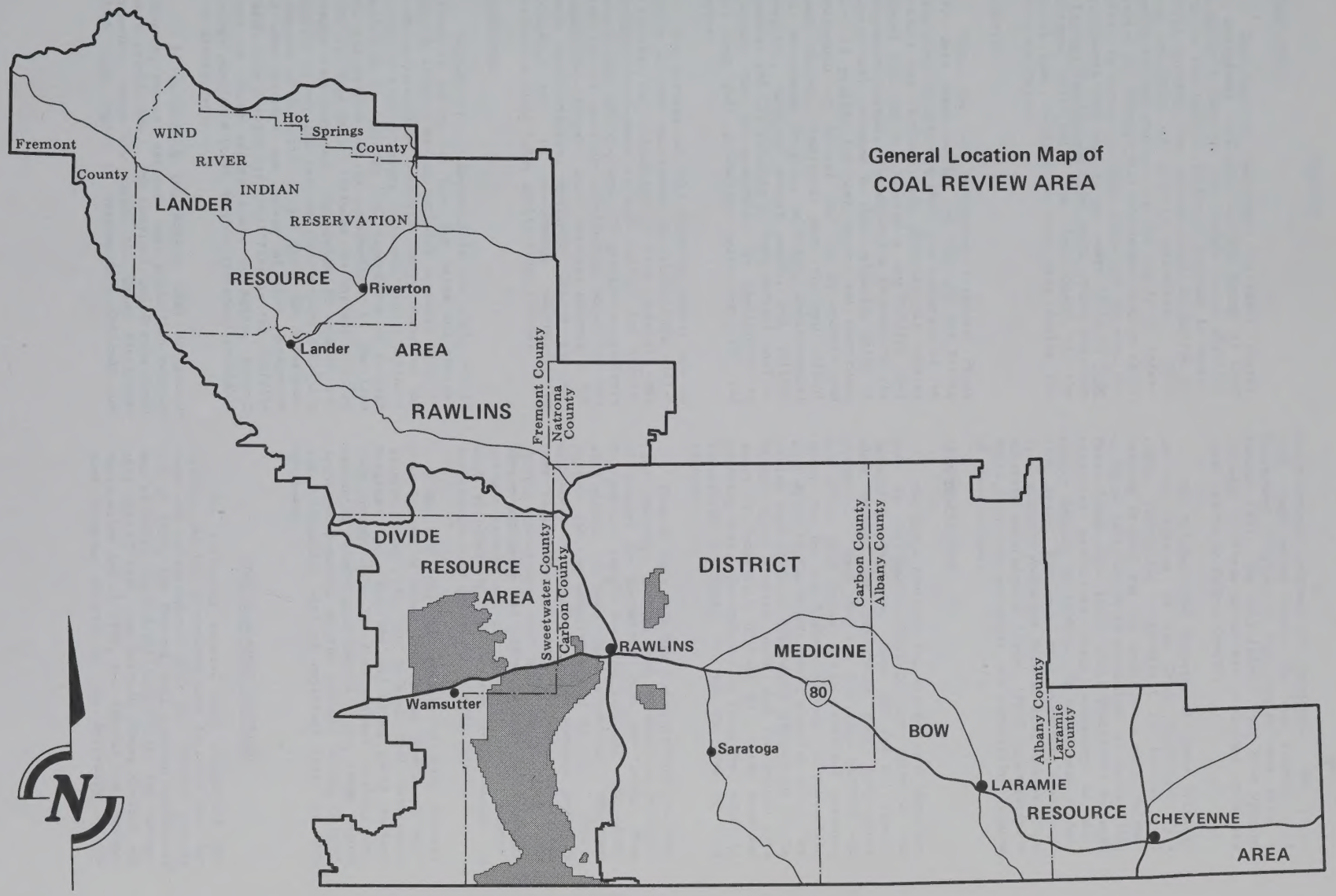
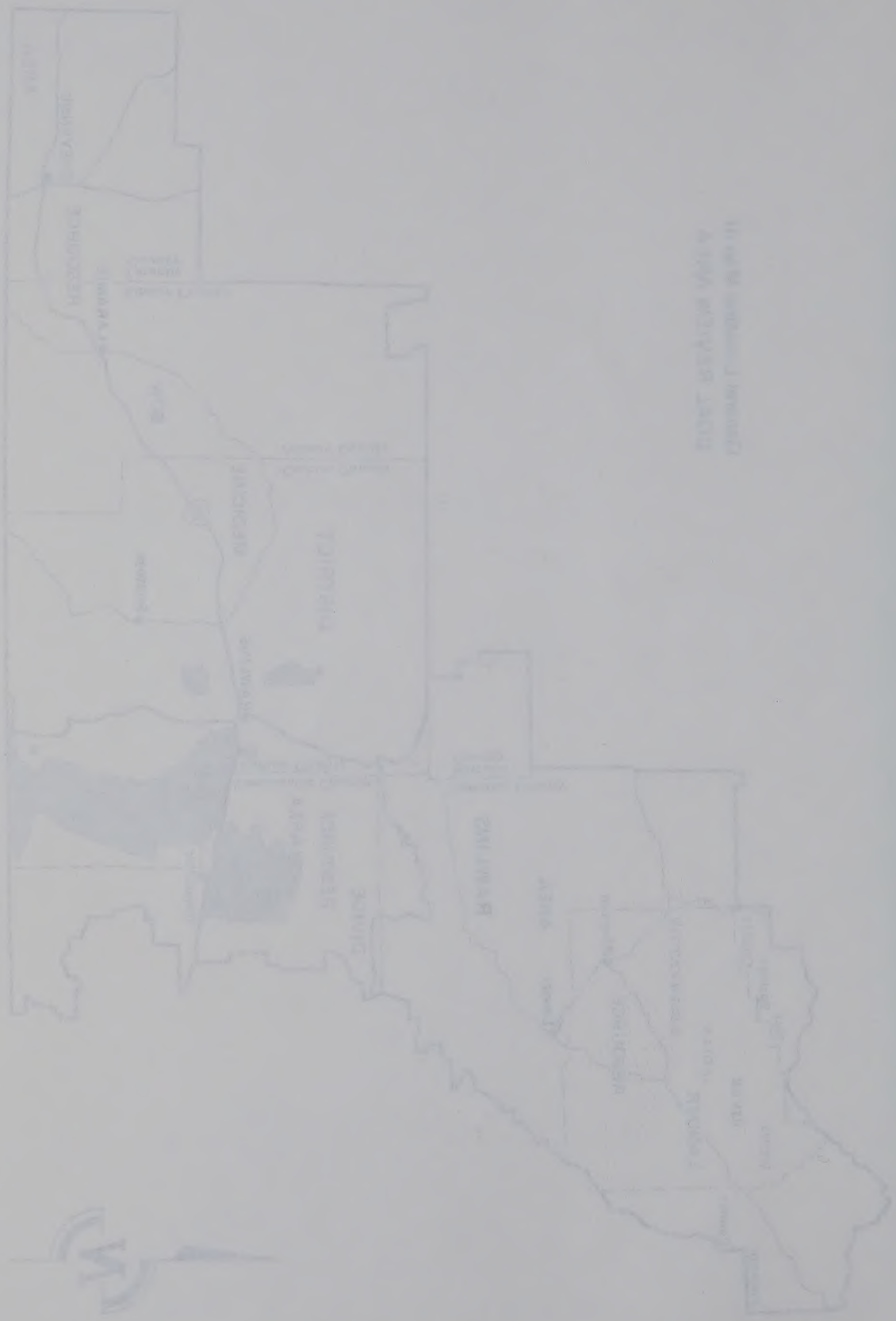

General Location Map of
COAL REVIEW AREA
Fremont
County
WIND
RIVER
INDIAN
RESERVATION
Hot
Springs
County
LANDER
RESOURCE
AREA
Riverton
Lander
RAWLINS
DIVIDE
RESOURCE
AREA
Fremont County
Natrona
County
Sweetwater County
Carbon County
Carbon County
Albany County
DISTRICT
RAWLINS
MEDICINE
BOW
80
Wamsutter
Saratoga
Albany County
Laramie
County
LARAMIE
RESOURCE
AREA
CHEYENNE
N



OVERVIEW

INTRODUCTION

This brochure summarizes the final federal coal management decisions for the Bureau of Land Management's Overland and Divide Basin planning units in the Rawlins District, located in south-central Wyoming. The process used to arrive at these decisions is briefly explained. This summary is intended to aid the public in understanding the Federal Coal Management Program as it applies to these planning units and to show the requirements that must be met under Title 43 Code of Federal Regulations (CFR) 3400. These planning decisions will guide the development of the federal coal resource in this area during the 1980's and beyond.

OBJECTIVE

Since the last Management Framework Plans (MFP) were completed for the Overland and Divide Basin planning units in 1977, the Secretary of the Interior has reviewed past policies for leasing federal coal and has adopted a new Federal Coal Management Program. The objective in managing the federal coal resource in these planning units is to-- (1) provide for both short- and long-range development of federal coal in an orderly and timely manner, consistent with the new Federal Coal Management Program, policies, environmental integrity, national energy needs, and related demands; and (2) identify as much federal coal as possible that is acceptable for development to help meet coal production goals for 1990 and beyond.

The purpose of this planning effort was to arrive at coal management decisions that will-- (1) guide the allocation of the federal coal resource development by both surface and subsurface mining methods; and (2) provide an analysis that can be used in considering areas for new competitive federal coal leasing, proposals for lease modifications, emergency leases and exchanges, and in processing noncompetitive Preference Right Lease Applications (PRLAs).

BACKGROUND

Because of developments in the world energy situation during the last few years and the resulting effects on the national economy, accelerated production of domestic energy resources has become a high priority national goal. National policy is to decrease U.S. dependence on foreign oil and achieve energy independence in the late 1980's. This policy includes development of other energy resources and conversion of energy resources to oil and gas uses, offsetting dwindling reserves of domestic oil and gas. The Department of the Interior and Bureau of Land Management (BLM) have a major responsibility in the fulfillment of these energy goals by making federal energy resources (coal in this instance) available for development.

In developing the Federal Coal Management Program, several national coal production regions were established. The Overland and Divide Basin planning units lie within the Green River/Hams Fork coal region of northwestern Colorado and south-central/southwestern Wyoming. The first coal lease sales under the new Federal Coal Management Program in this region were held in January 1981. The only federal coal from Wyoming included in these sales was contained in a few lease tracts in Carbon County.

The October 1980 Secretarial Issue Document on coal leasing in the Green River/Hams Fork region recognized a shortfall in federal coal leasing in 1981 and the need for an early follow-up lease sale, which is scheduled for March 1984. These lease sale dates were established to meet projected production goals necessary to meet energy demands in 1990's. To meet these production goals, BLM considered possible production from already producing federal coal leases, from existing nonproducing leases, from noncompetitive PRLAs, and from potential new competitive leasing of federal coal.

AREA DESCRIPTION

The areas reviewed for federal coal development in the Rawlins District are shown on the general location map. Maps 0-2 and D-1 thru 3 show surface and subsurface coal development potential. Maps 0-4 and 0-5 show surface and subsurface coal areas in the Overland planning unit. Map D-4 and 5 shows surface and subsurface coal areas in the Divide Basin planning unit. The review area north of Interstate Highway 80 is the Divide Basin planning unit, and the review area south of Interstate Highway 80 is the Overland planning unit. Information on these coal areas is summarized in Table 1-1 at the end of this brochure.

Some of this area has a checkerboard coal and land ownership pattern with alternating sections of federal and nonfederal coal and lands. Maps 0-1 and D-1 thru 3 show the land and coal ownership status. In some cases, ownership of the land surface and the underlying coal is split. There are areas of private or state surface ownership over federally-owned coal, and areas of federal surface ownership over state-owned coal. The latter situation was addressed only to determine surface impacts and the need for surface management stipulations, should the state decide to develop the coal under the federal surface.

The MFP does not address existing federal coal leases or other coal areas previously considered under the new Federal Coal Management Program (i.e., Red Rim and China Butte surface coal areas). The MFP does address existing nonproducing federal coal leases (i.e., those issued prior to passsage of the Surface Mining Control and Reclamation Act) as explained later in this brochure.

COAL MANAGEMENT DECISIONS

The following federal coal management decisions and the procedures used in their development are in accordance with the Mineral Leasing Act of 1920, the Federal Coal Leasing Amendments Act of 1976, the Federal Land Policy and Management Act of 1976, the Surface Mining Control and Reclamation Act of 1977, the Federal Coal Management Program adopted by the Secretary of the

Interior in June 1979, and all relative federal regulations.

The proposed coal management decisions for the Overland and Divide Basin planning units were issued on February 15, 1982. A public open-house, meeting and hearing on the proposals were conducted on March 15, 1982, in the Rawlins District Office and the public comment period ended on March 19, 1982. During and following the comment period, surface-owner consultation was initiated and formal consultation with the Wyoming State government on certain of the coal unsuitability criteria was completed. The records of these public involvement and consultation activities are on file for public viewing at the BLM Rawlins District Office. In summary, these activities raised the following issues and concerns regarding the proposed decisions:

-Wyoming Game and Fish Department, Wyoming Wildlife Federation, Wyoming Outdoor Council, a guide and outfitter, and four others disagreed with the consideration of leasing coal in the crucial elk winter range (which includes the Savery PRLAs). This group's concerns included the following:

1. It has not been proven that a crucial winter range can be reclaimed. Therefore, these groups oppose mining on any crucial winter range.

2. The elk herd contributes to, and is a major portion of, the quality of life expected by those living in Wyoming.

-The Rawlins City Council, Carbon County Commissioners, Carbon County Economic Development Committee, Rocky Mountain Energy Company, and three others disagreed with the recommendation to defer the planning decision on the acceptability of coal development in the crucial elk winter range. This group's concerns included the following:

1. The Atlantic Rim coal area should be carried through activity planning so that if it is determined that coal development is acceptable, the area could be leased through the 1984 cycle (i.e., a future coal activity planning effort would not be required).

2. The crucial elk winter range contains the highest quality coal and, if there is going to be development, it will have to occur in this area.

3. There is no guarantee there will be another federal coal lease sale after 1984.

4. Carbon County needs additional coal development.

-Through consultation with the Governor's Office, the state of Wyoming expressed concern about the potential coal development in the Savery PRLA project area. The state's concerns include the following:

1. "There may be difficulty in issuing a mining permit in the Savery PRLA area due to the additive nature of alluvial valley floors, wildlife and possible conflicts with the Little Snake Water Management Study. The exact nature of conflicts probably cannot be addressed until more specific information is developed."

2. "...the state of Wyoming is developing a water management program for the Little Snake drainage area and there is an outside chance that one of the water development options may conflict with coal leasing in the Cow Creek, Cottonwood, and Savery PRLA areas..."

-The state of Wyoming recommended the following in regard to deferring the planning decision within the crucial elk winter range:

1. "...the Atlantic Rim [surface mineable] tract be classified as 'suitable pending'..."

2. "...that a decision on leasing this [Atlantic Rim] tract not be made until the completion of the elk habitat study..." (However, if it is possible, make a leasing decision prior to completion of the elk study.)

3. "...that the Atlantic Rim tract be allowed to proceed through the current coal activity planning process..." (e.g., to afford the opportunity for leasing this area as soon as possible, should the final planning decision be that the area is acceptable for coal development by surface mining methods).

-Several public comments alluded to the idea that the Savery PRLA project area should not be mined in the foreseeable future and that BLM should pursue the possibilities of exchanging out of the Savery PRLAs. These concerns are due to: 1) significant social, economic, wildlife and hydrologic impacts that are likely to occur; and 2) conflict with BLM's reasonable proposal for north to south sequencing of coal leasing and development that would avoid or mitigate these impacts.

The proposed decisions were reevaluated on the basis of the public comment and consultation information obtained and the final federal coal management decisions for the Overland and Divide Basin planning units were developed accordingly. Since this brochure is a summary, the final decisions presented reflect only the results of the final analysis. The detailed information, rationale, and analyses that resulted in either changing or not changing some of the proposed decisions are available for viewing and discussion at the BLM Rawlins District and Divide Resource Area offices.

A more detailed description of the findings and procedures used to arrive at these decisions is contained in subsequent sections of this brochure. Maps delineating the Federal Coal Management Decisions for Surface Mining (Maps 0-6,

D-6 and 7), Subsurface Mining (Maps 0-7, D-6 and 7), and the results of the Coal Unsuitability Review and Multiple Use Conflict Evaluation for PRLAs, existing nonproducing leases, and Federal Surface-State Coal Areas (Maps 0-8, D-8), are located at the end of this brochure.

BLM hereby adopts the following decisions for managing the federal coal resources in the Overland and Divide Basin planning units.

1. For competitive federal coal areas with surface mining potential within the Overland and Divide Basin planning units:

   a. About 131,200 acres containing approximately 784 million tons of coal are acceptable for coal development by surface mining methods.

      The specific coal areas involved are (See Maps 0-4, D-4 and 5):

Surface Mine Areas	Coal Value	MM Tons Federal Reserves
Corral Canyon*	Moderate	20
Cherokee	Low	74
Kindt Basin**	Unknown	Unknown
Continental Divide	Unknown	Insignificant
Little Shoe	Unknown	Insignificant
Wild Horse	Unknown	Insignificant
Portions of North Horse Butte	Low	84***
Red Desert/Latham	Low	430
Mono	Low	155
Sourdough	Low	135

*An application for land exchange has been submitted on this area.
**All maps showing Kindt Basin do not, but should, include T. 19 N., R. 85 W., sec. 8, and T. 20 N., R. 85 W., sec. 32.
***Most of these reserves are unsuitable.

   b. Coal leasing will be deferred on about 30,720 acres of producing oil and gas fields containing approximately 307 million tons of coal, unless or until it is determined that coal development will not interfere with oil and gas operations or that such conflicts can be mitigated in these areas.

   c. Within the area defined as crucial elk winter range in the Overland planning unit, a decision as to the acceptability or unacceptability of the coal areas for further consideration for coal development is deferred until the final disposition of the Savery PRLAs is known and adequate elk habitat information is obtained. This affects about 56,640 acres and approximately 385 million tons of coal. The specific coal areas involved are (see Map 0-4):

Surface Mine Areas Deferred	Coal Value	MM Tons Federal Reserves
Atlantic Rim	High	87
North Cow Creek	High	119
Middle Cow Creek	High	78
South Cow Creek	High	101

   d. In response to public comment and consultation with the state of Wyoming, the Atlantic Rim surface coal area, which is within the above crucial elk winter range area, will be carried forward into the current coal activity planning process. Essentially, this area will be considered as acceptable for further consideration for coal development by surface mining methods, pending (1) the final disposition of the Savery PRLAs; and (2) adequate elk habitat information. The decision as to the acceptability or unacceptability for coal development in the Atlantic Rim surface coal area will be deferred until this same decision is made for the entire crucial elk winter range. Should the final decision be that the Atlantic Rim surface coal area is acceptable for coal development by surface mining methods, it will be considered for leasing as soon as possible thereafter.

      This involves about 8,000 acres and approximately 87 million tons of coal (see 1.c. above).

   e. About 4,960 acres and approximately 30 million tons of coal are acceptable for further consideration for coal development by surface mining methods, pending completion of consultation with qualified surface owners.

   f. About 25,235 acres containing approximately 172 million tons of coal are acceptable for further consideration for coal development by surface mining methods, pending completion of field examinations by the U.S. Fish and Wildlife Service (for Threatened and

      Endangered Species Habitat) and the state of Wyoming and the Office of Surface Mining (OSM) for a final determination of alluvial valley floors.

The areas mentioned in 1.a.,b.,d.,e. and f. above will be given further consideration for new competitive federal coal leasing, emergency leasing, lease modification and exchange proposals under the Federal Coal Management Program (43 CFR 3400) and Land Exchanges, general procedures (43 CFR 2200).

2. For competitive federal coal areas with subsurface mining potential within the Overland and Divide Basin planning units:

   a. About 188,320 acres containing approximately 2,792 million tons of coal are acceptable for coal development by subsurface mining methods. The specific

coal areas involved are (see Maps 0-5 and D-4 and 5):

Subsurface Mine Areas	Coal Value	MM Tons Federal Reserves
Atlantic Rim	High	116
Cedars	Moderate	740
Stagecoach	Moderate	335
Red Rim	Moderate	484
China Butte	Moderate	683
Indian Springs	Low	7
Cherokee	Low	149
North Horse Butte	Low	198
Continental Divide	Low	14
Hansen Draw	Unknown	Unknown
Kindt Basin	Unknown	Unknown
Red Desert/Latham*	Low	430
Mono*	Low	155
Sourdough*	Low	135

*These are precisely the same areas and tonnages listed under coal areas acceptable for surface mining methods.

b. About 36,800 acres containing approximately 627 million tons of coal are acceptable only for very limited surface operations and impacts associated with subsurface mining (i.e., subject to requirements for specific types, design and placement of facilities and activities, seasonal restrictions, etc.).

c. Coal leasing will be deferred on 36,640 acres of producing oil and gas fields, containing approximately 595 million tons of coal, unless or until it is determined that coal development will not interfere with oil and gas operations or that such conflicts can be mitigated in these areas.

d. Within the area defined as crucial elk winter range in the Overland planning unit a decision as to the acceptability or unacceptability of the coal areas for further consideration for coal development is deferred until the final disposition of the Savery PRLAs is known and adequate elk habitat information is obtained. This affects about 82,400 acres and approximately 1,431 million tons of coal. The specific coal areas involved are (see Map 0-5):

Subsurface Coal Areas Deferred	Coal Value	MM Tons Federal Reserves
Northeast Cow Creek	High	346
Middle Cow Creek	High	294
Southcentral Cow Creek	High	237
Southeast Cow Creek	High	262
Northwest Cow Creek	Moderate	292

e. The Northeast Cow Creek subsurface coal area, which is within the above crucial elk winter range area, will be carried forward into the current coal activity planning process. Essentially, this area will be considered as acceptable for further consideration for coal development by subsurface mining methods, pending (1) the final disposition of the Savery PRLAs and (2) adequate elk habitat information. The decision as to the acceptability or unacceptability for coal development in the Northeast Cow Creek subsurface coal area will be deferred until this same decision is made for the entire crucial elk winter range. Should the final decision be that the Northeast Cow Creek subsurface coal area is acceptable for coal development by subsurface mining methods, it will be considered for leasing as soon as possible thereafter. This involves about 18,560 acres and approximately 346 million tons of coal (see 2.d. above).

f. About 99,664 acres containing approximately 1,386 tons of coal are acceptable for further consideration for coal development by subsurface mining methods, pending completion of field examinations by the U.S. Fish and Wildlife Service (for Threatened and Endangered Species Habitat) and the state of Wyoming and OSM for a final determination of alluvial valley floors.

The areas mentioned in 2.a.,b.,c.,e. and f. above will be given further consideration for new competitive federal coal leasing, emergency leasing, lease modifications and exchange proposals under the Federal Coal Management Program (43 CFR 3400) and Land Exchanges, general procedures (43 CFR 2200).

3. Process the Savery PRLAs by the required December 1984 deadline (see Map 0-3). Special attention will be given to those sensitive value areas identified through the coal unsuitability review and multiple-use evaluation in the preparation of the environmental assessment for these PRLAs. This assessment will result in development of special stipulations necessary for protection of sensitive values. These protective stipulations will be carried through the final processing requirements and leasing decision for the PRLAs.

   It should be understood that the findings of the coal unsuitability review and multiple use conflict evaluation on these areas to date do not constitute land use planning decisions, per se. They are documented in this plan to serve only as a basic resource analysis for developing necessary stipulations (or identifying the need for other remedies) to protect sensitive surface values.

   The processing requirements of the PRLAs must be completed to determine whether or not the applicant is entitled to a lease before provisions of decisions 4.a. and 5. can be pursued.

4. The concept of a north-to-south coal leasing and development sequence will be pursued, if or when some part of a big game crucial winter range becomes acceptable for coal development. This concept will be pursued under the conditions that:

a. The Savery PRLA project area is not developed in the foreseeable future. If the Savery area is to be developed in the foreseeable future, consideration will be given to defer coal leasing in any other portion of the big game crucial winter ranges, until such time that it can be demonstrated that further coal development will not cause unacceptable impacts on the wildlife species involved.

b. If coal leasing and development should commence in the northern area of the big game crucial winter ranges, development may proceed south when it has been shown that:

   1) A crucial winter range can be mined in a manner which would not significantly disrupt winter survival of the species involved; and

   2) Sufficient crucial winter range has been reclaimed to be available for post mining uses and to mitigate or eliminate significant impacts from mining additional areas to the south.

c. This sequential coal leasing and development concept is applied to the entire Overland planning unit (i.e., total area south of Interstate Highway 80).

5. The Savery PRLA project area should not be mined within the scope and time frame of this land use plan (15-20 years) or at a determinable point beyond. Therefore, should the processing of the Savery PRLAs result in a determination that the applicant is entitled to a federal coal lease on the area, BLM will pursue the possibilities of negotiating an exchange, or whatever other remedies available, to remove the encumberance of the preference right lease to the area.

6. For nonproducing coal leases (both surface and subsurface mining methods), any further actions on nonproducing leases are deferred until such time as mining and reclamation plans are submitted or until lease readjustments occur. Special attention will be given to those sensitive value areas identified through the coal unsuitability review and multiple-use evaluation. This pertains only to those existing federal coal leases in effect prior to passage of the Surface Mining Control and Reclamation Act of 1977. Those federal coal leases issued under the new Federal Coal Management Program, since January 1981, are not involved.

   It should be understood that the findings of the coal unsuitability review and multiple use conflict evaluation on these areas to date do not constitute land use planning decisions, per se. They are documented in this plan to serve only as a basic resource analysis for developing necessary stipulations (or identifying the need for other remedies) to protect sensitive surface values at the time of mining and reclamation plan submission or lease readjustment.

7. The proposed exchange of certain federal lands and federal mineral rights in the Corral Canyon coal area for specific private lands and mineral rights within the Grand Teton National Park is viable and will be pursued.

8. Keep the Overland and Divide Basin planning units open to coal resource inventory and exploration, to aid in identification of coal resources and their development potential.

9. For the crucial elk winter range area, where the decision of acceptability or unacceptability for coal development has been deferred pending the final disposition of the Savery PRLAs and obtaining adequate elk habitat information:

   A formal call for additional resource data and information will be initiated as soon as possible. The data or information to be sought will involve any and all renewable and nonrenewable resource, social, economic, and other values and interests. This call will include a request for industry to identify those coal areas within the crucial elk winter range where there is very high and substantiated interest in developing the federal coal. As soon as practicable, possible coal development areas will be informally identified. All additional data, information, and high interest coal development areas will then be taken into consideration, along with and as part of the ongoing elk study, to arrive at the determinations of where, when and how much of the crucial elk winter range, if any, can be utilized for coal development.

10. For the approximately 28,800 acres of federal surface ownership-state coal ownership areas reviewed within the Overland and Divide Basin planning units (both surface and subsurface mining methods), any further actions are deferred until such time as the state considers the coal for leasing or, if already leased, until mining and reclamation plans are submitted.

    It should be understood that the findings of the coal unsuitability review and multiple use conflict evaluation on these areas to date do not constitute land use planning decisions, per se. They are documented in this plan to serve only as a basic resource analysis for developing necessary stipulations (or identifying the need for other remedies) to protect sensitive surface values at the time of mining and reclamation plan submission.

11. For the remaining federal surface ownership-state coal ownership areas that were not considered in this planning effort, the coal unsuitability review and multiple use conflict evaluation requirements will be conducted on a case-by-case basis, should the

state consider leasing the coal or as mining and reclamation plans are submitted.

PROCEDURES

The Federal Coal Management Program established four major steps to be used in the identification of federal coal areas that are acceptable for coal development. The four steps are: (1) identification of coal development potential, (2) application of the coal unsuitability criteria, (3) multiple-use conflict evaluation, and (4) surface owner consultation. Collectively, these steps are called the "Coal Screening Process" (43 CFR 3420.2-3) and are applied in sequence to the review area.

The following is a description of each of these steps and how they were applied to the review area.

STEP 1 - IDENTIFICATION OF COAL DEVELOPMENT POTENTIAL

Areas with primarily high and moderate coal development potential for both surface and subsurface mining were identified using Geological Survey (GS) Coal Resource Occurrence-Coal Development Potential (CRO-CDP) maps. Other areas assumed to have some level of development potential were also identified, using geologic and economic data submitted by coal companies, exploration activity by the Minerals Management Service (MMS) (formerly a division of USGS), and private industry, and interpretations of available geological data from various other sources. In development of these land-use decisions, BLM used coal value in addition to coal development potential. Specifically, BLM considered CRO/CDP information to delineate coal areas. The quantity and quality of the coal within each area was then considered along with the coal development potential to arrive at a general determination of each area's coal value.

The areas of known and assumed surface and subsurface coal development potential are shown on Maps O-2 and D-1 thru 3. Data for the coal areas are shown in Table 1-1. Only high and moderate potential surface coal and high potential subsurface coal are expected to be developed under present market conditions.

High development potential coal for surface mining has a stripping ratio of 0 to 10 cubic yards of overburden per ton of coal. Moderate development potential coal for surface mining has a stripping ratio of 10 to 15 cubic yards of overburden per ton of coal. Areas of high and moderate coal development potential for subsurface mining methods are defined as areas underlain by coal beds at depths ranging from 200 to 1,000 feet and 1,000 to 2,000 feet, respectively.

In applying this screening step, some areas of low and unknown coal development potential within the review areas were excluded from further consideration.

The remaining three screening steps are applied to those coal areas identified in Step 1. These latter steps are applied in sequence and only to the lands identified as acceptable for coal development in each preceding step. This results in (1) identifying areas that are acceptable for coal development in each of these 3 steps; (2) identifying areas that are unsuitable (Step 2); unacceptable (Step 3); and unavailable (Step 4) for coal development. Finally, all federal coal areas that pass through the screening process are determined to be acceptable for coal development by either surface or subsurface mining methods or both.

STEP 2 - APPLICATION OF COAL UNSUITABILITY CRITERIA

As required by 43 CFR 3461, the 20 coal unsuitability criteria were applied to all known and assumed high and moderate coal development potential areas.

These criteria involve consideration of existing resource values such as scenic areas, natural and historic values, wildlife, floodplains, alluvial valley floors, etc. The purpose of this step is to identify areas with key features or environmental sensitivity that would make them unsuitable for surface coal mining, subsurface coal mining, or for surface operations and impacts associated with subsurface coal mining.

STEP 3 - MULTIPLE USE CONFLICT EVALUATION

This step is a review of those federal coal lands that remain acceptable after applying the coal unsuitability criteria. It involves consideration of other multiple-use values and identifying any additional areas that would be unacceptable for surface coal mining, subsurface coal mining, or for surface operations and impacts associated with subsurface coal mining.

STEP 4 - SURFACE OWNER CONSULTATION

Section 714 of the Surface Mining Control and Reclamation Act requires BLM to consult with certain "qualified" owners of split estate lands (i.e., private surface ownership over federally owned coal) when surface mining of the federal coal is being considered.

This step does not apply to areas where only subsurface mining methods are concerned. It involves only those split estate lands within competitive federal coal areas that remain acceptable for development by surface mining methods after conducting the multiple-use conflict evaluation.

In this consultation process, qualified surface owners are asked to express their preference for or against surface mining of the federal coal under their private lands. An individual surface owner or significant numbers of surface owners expressing a preference against surface mining could result in identifying split-estate lands as unavailable for coal development. In such cases, the areas can still be considered for possible leasing beyond this land-use planning stage. This is possible because the actual commitment of surface owner consent or refusal to consent does not occur until later in the coal activity planning process, prior to offering a lease for the federal coal involved.

HOW THE PROCEDURES ARE APPLIED

To help clarify the coal screening process, two federal coal categories are identified; PRLAs (noncompetitive potential federal coal lease areas) and competitive federal coal areas. Competitive coal areas are those with the potential to be considered for new competitive federal coal leasing, modifications to existing leases, emergency leasing, and exchanges. Also for clarity, situations involving federal surface overlying state coal and existing nonproducing federal leases are identified.

COMPETITIVE FEDERAL COAL AREAS (SURFACE MINING)

All four steps of the screening process are applicable to these areas.

COMPETITIVE FEDERAL COAL AREAS (SUBSURFACE MINING)

Only steps 1-3 of the screening process are applicable to these areas.

FEDERAL SURFACE-STATE COAL AREAS (SURFACE AND SUBSURFACE MINING)

Only steps 2 and 3 of the screening process are applicable to these areas. In applying these screening steps, any areas of the federal land surface with key features, environmental sensitivity or other values that would effect coal development are identified. State-owned coal reserves are not considered. The purpose behind applying these screening steps to these areas is to provide a basic resource analysis in the MFP for developing needed stipulations and protective measures for the federal land surface, should the state decide to develop the coal. These areas are shown on Maps O-3 and D-1 thru 3.

As a matter of efficiency and timing, BLM elected to conduct the coal unsuitability review and multiple use conflict evaluation on these areas during land use planning. It should be understood that the findings of the review and evaluation on the areas are simply identified in this plan for the above stated purposes and reasons. At this time they do not constitute actual land-use planning decisions. It is possible that these findings could result in prohibiting or restricting surface occupancy or mining on the areas involved, if mitigation is not possible. However, such requirements may involve part, all or none of the sensitive areas depending upon the actual mining plan.

In conducting this planning effort, BLM reviewed only those federal surface-state coal areas that fell within the coal areas as defined in Step 1. Thus, there are still some of these areas in the Overland and Divide Basin planning units that have not been reviewed. BLM generally considers potential coal development in these remaining areas to be a valid consideration and within the general scope of this and other land use plans covering the resource area. Coal unsuitability reviews and multiple use conflict evaluations for these remaining areas will be handled on a case-by-case basis as state coal leases are issued or as mining and reclamation plans are submitted.

PREFERENCE RIGHT LEASE APPLICATION (PRLA) AREAS (SURFACE AND SUBSURFACE MINING)

The connotation of "Preference Right" is that any leases issued on PRLAs are "noncompetitive." That is, if in the processing of PRLAs it is determined that the federal coal they contain can be economically developed in an environmentally sound manner (either wholly or in part), the areas will be leased and the leases will be issued to only the holders of the preference right applications. These rights were established under the former prospecting permit system before the federal coal leasing moratorium went into effect.

The Federal Coal Leasing Amendments Act of 1976 abolished noncompetitive (Preference Right) leasing, subject to valid existing permits and applications. Under the Federal Coal Management Program, BLM is now required to complete processing of all existing PRLAs by no later than December 1, 1984.

Map O-3 shows the PRLAs within the Overland planning unit. Procedures for processing PRLAs are only partially related to the coal screening process. That is, only steps 2 and 3 of the screening process are applicable. Conducting these procedures for PRLAs may be completed as a part of the land-use planning process, or it could be conducted as a separate process.

As a matter of efficiency and timing, BLM elected to conduct the coal unsuitability criteria application and the multiple-use conflict evaluation for the PRLAs during land-use planning. Thus, the MFP provides a basic resource analysis for use in later PRLA processing requirements. The findings of the unsuitability review and multiple use conflict evaluations on these areas do not constitute actual planning decisions at this time.

The potential impacts of coal development on the values and concerns identified in the PRLA areas will be addressed later in the preparation of an environmental assessment and regional environmental impact statement. This will result in development of necessary stipulations and mitigation requirements to be used in the final adjudication of the applicant's right to a coal lease. Final adjudication could result in either rejection of the application, issuance of the coal lease, or exchange of sensitive value areas that should not be mined.

NONPRODUCING COAL LEASE AREAS

(SURFACE AND SUBSURFACE MINING)

Only steps 2 and 3 of the screening process are applicable to these areas. Also, only those federal coal leases issued prior to passage of the Surface Mining Control and Reclamation Act of 1977 are involved. Existing federal coal leases in the Overland planning unit that were issued after that date (i.e., the China Butte surface mining lease) have already been processed under the requirements of the new Federal Coal Management Program, which includes application of these two screening steps.

Under the Federal Coal Management Program, BLM is required to apply the coal unsuitability criteria to appropriate existing federal coal

leases either at the time of land-use planning, submission of mining and reclamation plans, or when the lease readjustment period occurs. Map O-3 shows the nonproducing coal lease areas considered during this planning effort

As a matter of efficiency and timing, BLM elected to conduct the coal unsuitability criteria application and the multiple-use conflict evaluation for the nonproducing leases during land-use planning. This will serve as a basic resource analysis for later use in developing necessary stipulations and mitigation requirements for mining and reclamation plans and lease readjustment. The findings of the unsuitability review and multiple use conflict evaluation in these areas do not constitute actual planning decisions at this time.

Note: Unsuitability criteria 9-15 were not applied to the nonproducing leases. This was a result of a civil suit action filed by Texaco, Incorporated and the National Coal Association, et al. vs. Cecil D. Andrus, Secretary, Department of Interior, et al. A U.S. District Court decision on this action, in favor of the plaintiffs, was filed on August 15, 1980. The decision remands several parts of the coal regulations to the Secretary concerning his authority to apply some of the unsuitability criteria to existing leases. The decision was subsequently appealed by BLM and it has not been fully resolved. However, BLM has conceded that unsuitability criteria 9-15 are not applicable to existing producing or nonproducing leases.

FINDINGS

The following is a summary of the findings and related recommendations resulting from conducting the coal screening process. All acreage and coal tonnage figures are approximate. Additional documentation and background information, explaining in detail how the procedures were used and the findings made, are available for public review at BLM's Rawlins District and Divide Resource Area offices.

STEP 1 - COAL DEVELOPMENT POTENTIAL

Table 1-1 (located at the end of the brochure) summarizes the findings of Step 1 (Federal Coal Development Potential). Also see Maps O-2 and D-1 thru 3.

STEP 2 - UNSUITABILITY CRITERIA

The following discussion briefly explains the findings resulting from application of each unsuitability criterion. Table 1-2 lists the findings by criterion. Table 1-3 includes a summary of the overall results of the application of the unsuitability criteria. Maps O-6, O-7, O-8, D-6 and 7, and D-8 also show the overall summary results of applying the criteria. All of these tables and maps are located at the end of the brochure.

No conflicts or unsuitable areas were identified under coal unsuitability criteria 1, 4, 5, 6, 8, 10, 17, 18 and 20. All areas are acceptable for coal development (both surface and subsurface mining methods) under these criteria.

Criterion #2 - Rights-of-Way and Easements

Most of the rights-of-way crossing the coal areas can be relocated to accommodate coal mining and related activities. Thus, BLM made a "general" determination that most right-of-way areas are acceptable for coal development, subject to valid existing rights and negotiations for relocating if necessary, appropriate stipulations and consistency with current planning and management decisions. Any unforeseen conflicts in these areas should be identified and resolved during the coal activity planning process or in mining and reclamation plan development. Only those areas where coal development would create significant conflicts with rights-of-way are identified below. The rights-of-way are Interstate 80 and an area adjacent to the Interstate 80 right-of-way which contains numerous transmission line rights-of-way.

Competitive Federal Coal Areas

About 2,000 acres containing an unknown amount of coal were determined to be unsuitable for surface and subsurface mining methods.

PRLA Areas

No areas were determined to be unsuitable.

Nonproducing Coal Lease Areas

No areas were determined to be unsuitable.

Federal Surface - State Coal Areas

Conflicts were identified on about 300 acres.

Criterion #3 - Buffer Zones for Rights-of-Way, Communities, and Buildings

Competitive Federal Coal Areas

About 800 acres containing approximately 8 million tons of coal were determined to be unsuitable for surface and subsurface mining methods. The right-of-way involved is Interstate 80.

Note: These 800 acres are overlapped by the unsuitable area identified under Criterion #2.

PRLA Areas

No areas were determined to be unsuitable.

Nonproducing Coal Lease Areas

No areas were determined to be unsuitable.

Federal Surface - State Coal Areas

Conflicts were identified on about 180 acres.

Note: These 80 acres are overlapped by the conflict area identified under Criterion #2.

Criterion #7 - Historic Lands and Sites

Segments of the Overland Trail and the Washakie Stage Station National Historic Site are located in the Overland planning unit and involve

some of the coal areas therein. After consultation with the Wyoming State Historic Preservation Officer (SHPO), it was determined that the Overland Trail is eligible for listing in the National Register of Historic Places. It was also determined that the Overland Trail segments and the Washakie Stage Station Site are unsuitable for surface mining and for surface operations and impacts associated with subsurface mining. In addition, a 1,320-foot buffer zone along either side of the trail segments and around the stage station site was determined to be unsuitable for any intrusions, within the 1,320-foot limit, that would be visible from the trail segments or the stage station. The areas affected are identified below.

Competitive Federal Coal Areas

About 600 acres containing approximately 2.3 million tons of coal were determined to be unsuitable for surface mining methods.

PRLA Areas

No areas were determined to be unsuitable.

Nonproducing Coal Lease Areas

No areas were determined to be unsuitable.

Federal Surface - State Coal Area

No conflicts were identified.

Criterion #9 - Federally Listed Endangered Species Habitat

No areas were determined to be unsuitable under this criterion.

Some potential habitat areas for black-footed ferrets have not yet been searched to determine whether or not ferrets occur in the areas. The necessary searches and consultation requirements with the Fish and Wildlife Service will be conducted during coal activity planning. Only the areas to be searched are identified below.

Competitive Federal Coal Areas

About 22,560 acres containing approximately 94 million tons of coal are acceptable for coal development by surface mining methods, pending completion of ferret studies and consultation with the U.S. Fish and Wildlife Service (as required under section 7 of the Endangered Species Act of 1973 as amended).

About 97,440 acres containing approximately 1,386 million tons of coal are acceptable for the surface operations and impacts associated with subsurface mining, pending completion of ferret studies and consultation.

Federal Surface - State Coal Areas

About 4,320 acres will require ferret studies and consultation with the U.S. Fish and Wildlife Service.

Criterion #11 - Bald and Golden Eagle Nests

Eagle nests and appropriate buffers were identified by the USFWS, BLM, and the Wyoming Game and Fish Department.

Competitive Federal Coal Areas

About 6,150 acres containing approximately 22 million tons of coal were determined to be unsuitable for surface mining methods. An additional 775 acres containing 8 million tons of coal were determined to be acceptable for surface mining methods, pending field examinations during coal activity planning (spring 1982).

No areas were determined to be unsuitable for subsurface mining. However, 4,390 acres are restricted to very limited surface operations and impacts associated with subsurface mining (e.g., subject to requirements for specific placement, design and types of facilities, seasonal occupancy, etc.). An additional 320 acres are acceptable for the surface operations and impacts associated with subsurface mining, pending field examinations during coal activity planning in the spring of 1982.

PRLA Areas

No areas were determined to be unsuitable for subsurface mining. However, 1,200 acres are restricted to very limited surface operations and impacts associated with subsurface mining (e.g., subject to requirements for specific placement, design and types of facilities, seasonal occupancy, etc.).

Nonproducing Coal Lease Areas

No areas were determined to be unsuitable.

Federal Surface - State Coal Areas

No conflicts were identified.

Criterion #12 - Bald and Golden Eagle Roost and Concentration Areas

No areas were determined to be unsuitable under this criterion. However, some lands require field investigations yet to be completed. The following pertains to these investigation areas.

Competitive Federal Coal Areas

About 1,500 acres and approximately 15 million tons of coal were determined to be acceptable for further consideration for coal development (for both surface and subsurface mining methods), pending field examinations during coal activity planning and Section 7 consultation (described under criterion 9 above).

PRLA Areas

No areas were determined to be unsuitable.

Nonproducing Coal Lease Areas

No areas were determined to be unsuitable.

Federal Surface - State Coal Areas

No conflicts were identified.

Criterion #13 - Falcon Cliff Nesting Sites

Competitive Federal Coal Areas

About 1,835 acres containing approximately 1 million tons of coal were determined to be unsuitable for surface mining methods.

No areas were determined to be unsuitable for subsurface mining. However, 2,720 acres are restricted to very limited surface operations and impacts associated with subsurface mining (e.g., subject to requirements for specific placement, design and types of facilities, seasonal occupancy, etc.).

PRLA Areas

No areas were determined to be unsuitable.

Nonproducing Coal Lease Areas

No areas were determined to be unsuitable.

Federal Surface - State Coal Areas

Conflicts were identified on about 120 acres.

Criterion #14 - Migratory Bird Habitat

The high priority migratory bird habitat considerations in the coal areas are for golden eagles, prairie falcons, ferruginous hawks, great blue herons and greater sandhill cranes.

Competitive Federal Coal Areas

About 19,900 acres containing approximately 49 million tons of coal were determined to be unsuitable for surface mining methods.

Note: About 160 of these acres overlap with portions of unsuitable areas identified under Criterion #7.

No areas were determined to be unsuitable for subsurface mining; however, 16,205 acres are restricted to very limited surface operations and impacts associated with subsurface mining (e.g., subject to requirements for specific placement, design and types of facilities, seasonal occupancy, etc.).

PRLA Areas

No areas were determined to be unsuitable. However, 320 acres are restricted to very limited surface operations and impacts associated with subsurface mining to protect high priority habitat for greater sandhill cranes and great blue herons.

Nonproducing Coal Lease Areas

No areas were determined to be unsuitable.

Federal Surface - State Coal Areas

No conflicts were identified.

Criterion #15 - Habitat for State High-Interest Wildlife

No areas were determined to be unsuitable under this criterion.

The primary habitat considerations involved with the coal areas are sage and sharp-tailed grouse breeding, nesting and wintering grounds and most critical (crucial) elk, deer and antelope winter ranges. Through consultation with the state of Wyoming it was determined that the grouse habitat areas are acceptable for coal development (surface or subsurface mining) with stipulations and mitigation requirements for habitat improvement, development, and reclamation.

It was also determined that:

a. Elk rely on a total yearlong range of 784,000 acres, of which about 327,000 acres are winter range and about 131,000 acres (17 percent of the total range) is "most critical" habitat as defined under this criterion;

b. Deer rely on a total yearlong range of 726,000 acres, of which about 300,000 acres are winter range and about 120,000 acres (14 percent of the total range) is "most critical" habitat as defined under this criterion; and

c. Antelope rely on a total yearlong range of 633,300 acres, of which about 362,800 acres are winter range and 80,000 acres (13 percent of the total range) is "most critical" habitat as defined under this criterion.

Obviously, if all or a significant portion of the crucial winter range for one or more of the big game species involved were to be mined or made available for mining during one time span, significant long-term impacts to the survival of the herds would likely occur. However, in considering the exceptions to the criterion, BLM determined that (1) certain stipulated methods of mining (e.g., underground mining, habitat recovery, limited surface occupancy, or other mitigation requirements); or (2) sequential mining over a long time period (i.e., to maintain a proper mix and balance between areas disturbed by mining and undisturbed or reclaimed areas), would not cause significant long-term impacts to the species being protected. Further, mitigation measures would be combined with appropriate mining methods to temper the impacts of mining in crucial big game winter ranges. Therefore, these areas were determined to be acceptable for coal development with certain stipulated methods of mining and mitigation requirements under a long-range leasing and development concept.

Criterion #16 - Floodplains

Through consultation with the MMS, it was determined that most of the identified floodplain areas can be mined so that all or certain stipulated methods of coal mining can be undertaken without substantial threat of loss to people or property and to the natural and beneficial values of the floodplain, either on a coal lease tract or downstream. Examples of lease stipulations may include, but are not limited to, relocation of

channels during mining and restoration of channel locations after mining, controlling sediment yields and prohibiting spoil dumping in channels, lining channel bottoms, revegetation and general mined-land reclamation, etc. One floodplain area that would present hazards and impacts to occupied residences is addressed below. All other floodplain areas were determined to be acceptable with certain stipulations and mitigation requirements.

Competitive Federal Coal Areas

About 400 acres containing approximately 4 million tons of coal were determined to be unsuitable for surface mining methods.

No areas were determined to be unsuitable for subsurface mining or for surface operations and impacts associated with subsurface mining.

PRLA Areas

No areas were determined to be unsuitable.

Nonproducing Coal Lease Areas

No areas were determined to be unsuitable.

Federal Surface - State Coal Areas

No conflicts were identified.

Criterion #19 - Alluvial Valley Floors

No areas were determined to be unsuitable under this criterion.

In consulting with the Office of Surface Mining (OSM) and state government, it was concluded that final determination of alluvial valley floors (AVFs) is the responsibility of OSM and the state at the time of mining plan approval and mine permitting. The following pertains only to "possible" AVFs identified by BLM.

Possible AVFs were identified as areas adjacent to riverine environments or areas supplied with irrigation waters where the planned and purposeful application of money and effort to raise and harvest a crop is undertaken. They were delineated from maps, developed by the Wyoming Water Development Commission in 1979, showing irrigated lands.

Competitive Federal Coal Areas

About 400 acres containing approximately 4 million tons of coal were determined to be acceptable for further consideration for coal development by surface mining methods, pending final determination of AVFs by OSM and the state of Wyoming.

About 400 acres containing approximately 4 million tons of coal were determined to be acceptable for further consideration for coal development by subsurface mining methods, pending final determination of AVFs by OSM and the state of Wyoming.

PRLA Areas

No areas were determined to be unsuitable.

Nonproducing Coal Lease Areas

No areas were determined to be unsuitable.

Federal Surface - State Coal Areas

No conflicts were identified.

EVALUATION OF OTHER MULTIPLE USE CONFLICTS

STEP 3 - MULTIPLE-USE ANALYSIS

CONFLICT 1

Coal development could conflict with big game crucial winter ranges.

Analysis

The Overland planning unit contains crucial winter ranges for deer, antelope, and elk. (For a discussion of deer and antelope crucial winter ranges, please see the discussion on sequential mining.) The elk crucial winter range contains the highest quality coal in the resource area. The proposed decision was to defer a determination as to the acceptability or unacceptability of this crucial winter range until completion of an elk study presently underway and the disposition of the Savery PRLAs is known.

Public comment, summarized in the beginning of this brochure, ranged from preserving the elk herd (develop no coal) to develop coal as a means to stimulate the local economy.

Determination

Defer a decision on the acceptability or unacceptability of the coal areas within the crucial elk winter range until there is adequate information for the elk habitat and a final determination has been made regarding the leasing of the Savery PRLAs.

1. Exception

One exception to this decision is the Atlantic Rim subsurface coal area. This coal area is acceptable for subsurface mining methods under the condition that mining within that portion of the coal area that contains elk crucial winter range be stipulated to protect and/or enhance the crucial winter range. Examples of such stipulations may include, but are not limited to, no surface occupancy, seasonal restrictions, habitat replacement, limited surface disturbance, etc.

2. Variation

The Atlantic Rim surface coal area and Northeast Cow Creek subsurface coal area will be carried through the coal activity planning process, including calls for expressions of interest, tract delineation, site-specific analysis, and the regional environmental impact statement.

The rationale for this variation is based on comments received from state and

local governments. State and local governments expressed a concern that if, subsequent to the elk study, the Atlantic Rim surface coal area were to be determined acceptable for coal development, the area would not have been included in the coal activity planning process to allow it to be leased by or soon after the 1984 lease sale.

The Northeast Cow Creek subsurface coal area was included for consideration with the Atlantic Rim surface coal area because-- 1) the state of Wyoming has already issued several coal leases in the area; and 2) the area is located in the northern portion of the elk crucial winter range and is consistent with the concept of the north-to-south mining sequence.

This variation in the deferral does not imply that these two areas within the crucial elk winter range are the most likely areas to be acceptable for coal development. Given the inadequacy of data regarding the crucial winter range, the determination of the acceptability or unacceptability of any coal area within that range must and will be deferred until adequate data is available for the elk crucial winter range and final disposition of the Savery PRLA Project is known.

BLM will ask for any additional resource data within the crucial winter range that we may not have. This additional information will then be combined with the results of the elk study, the information gained on Atlantic Rim and Northeast Cow Creek, and considered along with the Savery PRLA area to reach the final determination for the crucial elk winter range.

CONFLICT 2

Coal development in the southern portion of the Overland planning unit may conflict with the capabilities of the communities in that vicinity to accomodate growth, while directing population away from those communities that need the development in the north.

Analysis

There is a surplus of infrastructure (housing, services, etc.) in Rawlins and other communities along and near Interstate 80. These communities have become dependent on the coal industry to provide local population growth. On the other hand, Baggs, Dixon and Savery (along the Wyoming-Colorado border) are experiencing some growth related to oil and gas development. Any additional growth in these southern communities, resulting from coal development, would strain their ability to accomodate that growth. If coal development began in the south, population would be directed away from Rawlins and other communities in the north and concentrated in Baggs, Dixon, and Savery. Development in the south would, therefore, help to prolong the recession in the northern communities and aggravate the growth situation in the southern communities.

Further, if coal development were to occur in the southern portion of the planning unit, instead of the north, coal companies would probably have to build extensive transportation systems to market their coal. These transportation systems would cause additional, significant costs to coal production and, if they were to be built north to the Union Pacific Railroad line, would also cause potentially significant impacts to the deer, antelope, and elk crucial winter ranges that lie to the north of the Wyoming-Colorado border.

The China Butte surface mine coal lease (issued in Ocober, 1981) contains crucial deer winter range and the proposed Red Rim surface mine coal lease contains crucial antelope winter range. Both of these tracts are in the northern portion of the Overland planning unit. We believe no additional coal development should occur in the deer and antelope crucial winter ranges until such time that it has been shown that:

a. A crucial winter range can be surface mined in a manner that would not significantly disrupt winter survival of those animals.

b. Sufficient crucial winter range has been reclaimed to mitigate or eliminate the impacts from mining additional areas to the south.

Determination

Adopt the concept of a north-to-south mining sequence of the Overland planning unit. Allow additional coal development to the south when conditions "a" and "b" above are shown to have been met.

CONFLICT 3

Development of the Savery PRLAs would conflict with the north-to-south mining sequence, crucial deer and elk winter ranges, and may also conflict with the state of Wyoming's Little Snake Water Management Study. Furthermore, the Governor of Wyoming indicated the State may have difficulties permitting a mine on the Savery area.

Analysis

Leasing and development of the Savery PRLAs in the foreseeable future, is likely to cause significant social, economic, wildlife, and hydrologic impacts. In addition, this conflicts with a north-to-south mining sequence in the resource area which would substantially avoid these impacts.

The Savery PRLAs are in the southern portion of the crucial elk winter range (CWR). The analysis done to date, indicates the the potential for a 4 to 7 million ton per year (TPY) mine and a regional population increase of up to 8,600 people. A population increase of this magnitude has a high probability of causing significant impacts to local communities, transportation systems, agriculture, and wildlife values. The degree of impacts will depend upon where these people choose to live. Present conditions in the Little Snake River Valley (sewage, housing, etc.) would not accommodate very much population growth

in the short run (within 10 years of starting development). During this period, most of the 8,600 people would be expected to live in other communities - Craig, Colorado, and Rawlins, Wyoming, for instance. However, in the long run (10 to 20 years) this population can be expected to migrate to the Little Snake River Valley as housing and other services increase to accommodate growth. During this period, the Little Snake River Valley could increase from a population of 537 (1980) to a population of 9,000 people. Aside from the loss of agricultural lands and wildlife habitat (some of which is crucial big game winter ranges and threatened and endangered species habitat), these 9,000 people would be dependent upon a single industry with a life expectancy of 30 to 40 years. There is, therefore, some concern of creating a boom-and-bust situation in the Little Snake River Valley as a result of mining the Savery PRLAs. During the boom period, major population shifts would occur from existing communities, like Rawlins, to the Little Snake River Valley. This shift could cause significant impacts to the Rawlins area during the boom period while the PRLAs are in operation and then devastate the Little Snake River Valley when mining of the PRLAs is completed.

Development of the PRLAs in the near future is contrary to the potential for north-to-south sequential development of the coal within the Overland planning unit. This sequence would dictate that coal development of the area encumbered by the PRLAs could not begin within the timeframe of this plan (i.e., 15-20 years) or even later.

During consultation, the state of Wyoming indicated "there may be difficulty in issuing a mining permit in the Savery PRLA area due to the additive nature of alluvial valley floors, wildlife impacts, and possible conflicts with the Little Snake Water Management Study."

Because of potentially significant land use and resource conflicts with coal development in the Savery PRLA area, the length of time mining activity would have to be deferred in the area, the unreasonableness of that deferral upon the lease applicant, and the difficulty the state may have issuing a permit to mine the area (perhaps to the point of prohibiting or severely restricting mining), the following determinations have been made.

Determination

The Savery PRLA project area should not be mined in the foreseeable future. Therefore, if in the processing of the Savery PRLAs it is determined the applicant is entitled to a coal lease, BLM should pursue the possibilities of negotiating an exchange, or whatever other avenues available, to remove the emcumberance of the preference right lease from the area.

CONFLICT 4

Producing Oil and Gas Fields

Coal development may conflict with producing oil and gas fields.

Analysis

Most of the public lands within the Overland and Divide Basin planning units have been leased for oil and gas. Coal development within producing oil and gas fields may lead to conflicts.

Coal leasing should be allowed within producing oil and gas fields, or portions thereof, when mining operations will not interfere with operations in a producing oil and gas field or when such conflicts can be mitigated. Determinations to consider coal leasing in producing oil and gas fields should involve analyzing the effects of coal development on oil and gas operations on a case-by-case basis, depending on-- 1) the completion, production, and abandonment of the wells and facilities, and 2) the timing of these activities with that of physical coal development activities. If coal development would interfere with oil and gas operations and production, then further consideration for coal leasing in those areas should be deferred.

Determination

Defer coal leasing in producing oil and gas fields unless or until it is determined that coal mining will not interfere with economic recovery of the oil and gas resources or that such conflicts can be mitigated. This decision potentially affects about 30,720 acres containing approximately 307 million tons of coal.

The intent of this determination is to maximize production of energy resources and avoid situations where development of one energy resource would be to the detriment of another. As explained below, this deferment may or may not be long-lived and may ultimately affect more or less than the 30,720 acres identified.

A formal call for expressions of coal leasing interest will immediately follow issuance of the final coal management decisions. Anyone interested in leasing coal in the deferred oil and gas areas is invited to supply, along with his "expression," any oil and gas operation and production information that would show there will be no conflicts between oil and gas operations and coal development in the area(s) of interest. With MMS confirmation of the information submitted, areas within the producing oil and gas fields would be available for coal tract delineation and would be given further consideration for coal leasing.

Additionally, before potential coal lease tracts are delineated, the MMS-Tract Delineation and BLM-Site Specific Analysis teams will conduct a joint field review of possible lease tract areas, especially where there is high interest in coal leasing. Any new information gathered in the field regarding oil and gas operations and production will be considered before coal tracts are delineated.

Note: This could result in existing producing oil and gas areas being available for coal leasing or new oil and gas production areas being identified and deferred where conflicts would exist. Following tract delineation, any new oil and gas operations occurring within a coal tract

or new oil and gas information regarding a tract will be analyzed during the coal activity planning process. Because the coal unsuitability criteria have been applied to the oil and gas areas, it will be possible to lift this multiple-use planning constraint whenever MMS determines that either all or portions of a producing oil and gas field are no longer required for oil and gas operations or that conflicts between oil and gas operations and coal development can be mitigated.

The detailed procedures for determining oil and gas and coal development conflicts and for applying this planning constraint have been jointly developed by BLM and MMS under Department of the Interior guidelines. Information on these procedures is available at the BLM Rawlins District office.

CONFLICT 5

Coal development may conflict with some cultural sites which may be (or are) eligible for the National Register of Historic Places.

Several sites which have the potential to be eligible for the National Register of Historic Places have been identified through consultation with the State Historic Preservation Officer (SHPO). Those coal areas which are acceptable for further consideration for coal development are acceptable with the understanding that a Class III cultural inventory and paleontological inventory is required prior to any surface disturbance. Furthermore, all eligible or potentially eligible sites - those we know to exist as well as any that may be found during the inventory - will require mitigation after consultation with the SHPO and Advisory Council on Historic Preservation prior to surface disturbance. Types of mitigation measures which are typically considered include data recovery, avoidance, buffer zones, etc.

This understanding and these types of requirements are normal considerations which are addressed at the mine-plan approval and mine permitting stages. Therefore, a specific land use planning decision addressing these items is unnecessary.

Corral Canyon/JY Ranch Exchange Proposal

The Corral Canyon/JY Ranch exchange proposal involves three universities and a charitable organization (which have private land inholdings in Grand Teton National Park), Rocky Mountain Energy Company (which is interested in acquiring the federal coal in the Corral Canyon area), and the National Park Service (which is interested in acquiring the private inholdings within the park boundaries). An environmental assessment will be done to determine whether the public interest will be served by acquiring additional parklands in exchange for the Corral Canyon property. Federal coal lands in the Corral Canyon area are acceptable for further consideration for coal development by both surface and subsurface mining methods. The land tenure pattern in the Corral Canyon area, however, may not be conducive to competition for the federal coal, as the federal coal lands are scattered and constitute only about 30 percent of the area.

Determination

The exchange proposal is viable and should be pursued.

SUMMARY OF THE COAL SCREENING PROCESS

The following tables and maps contain the summary results of the coal screening process. These results were used to formulate the decisions described at the beginning of this brochure.

ACTIONS TO FOLLOW

A formal call for expressions of interest in leasing federal coal will immediately follow the final decision in the first part of May 1982. This will involve the competitive coal areas identified as acceptable, acceptable pending study, those deferred from leasing because of potential oil and gas conflicts and those generally identified as the Atlantic Rim surface coal and Northeast Cow Creek subsurface coal areas. Exchange proposals must be submitted during this expression period to avoid potential conflicts with delineating tracts for competitive coal leasing.

Surface owner consultation will be completed during the coal activity planning process. Any qualified surface owner preferences against surface mining of the federal coal under their lands may result in some areas becoming unavailable for further consideration for coal leasing.

The second federal coal lease sale for the Green River/Hams Fork Coal Production Region is scheduled to be held in March 1984. Public notices will be issued for the various actions and events leading up to the lease sale.

Processing of PRLAs will continue and PRLA leasing decisions will be made when processing is completed.

TABLE 1-1--COAL INFORMATION

Only those coal areas which will be carried through the coal activity planning process are listed in this table. Detailed information on the remaining coal areas is available at the Rawlins District Office.

SURFACE COAL AREAS

High Value Coal Areas

Atlantic Rim Reserves in Place*

Seam	Measured Million Tons	Indicated Million Tons	Inferred Million Tons	Total Million Tons
Z2	1.26	3.37	0.49	5.12
Z1	1.11	3.73	0.14	4.98
Z	2.16	7.19	----	9.35
Y	3.33	13.47	0.71	17.51
X	1.14	2.06	0.07	3.27
W	0.32	0.52	----	0.84
Total	9.32	30.34	1.41	41.07

* Private industry indicates a reserve base of 87 million tons with up to 400 feet overburden and minimum 2 foot seam thickness. Average coal quality: 10,277 BTU/lb., 13.41 percent moisture, 34.47 percent volatiles, 43.32 percent carbon, 8.79 percent ash, and 1.02 percent sulfur.

Moderate Value Coal Areas

Corral Canyon

The USGS identified some isolated coal outcrops in the Allen Ridge, Pine Ridge, Fox Hills, and Almond Formations but only the Almond revealed coals in the subsurface. The USGS has little data to work with and had calculated a reserve base of 5.5 million short tons in one coal bed and one local coal lens. Proximate analyses on coal from the Almond Formation in this area are approximately 11,000 BTU/lb., 9 to 10 percent moisture, 30 to 34 percent volatiles, 45 to 50 percent carbon, and 0.36 to 0.50 percent sulfur. The USGS has plans to collect more data in this area.

Information supplied by industry for this area is quite different. This information is based on a denser drilling pattern and also on a minimum seam thickness of 2 feet and overburden thicknesses of 20 to 400 feet. This information indicates the federal reserve base is 19.8 million short tons. A weighted average of proximate analyses is 10.945 BTU/lb., 0.59 percent sulfur, 10.03 percent moisture, 7.87 percent ash, 36.51 percent volatiles, and 45.59 percent carbon.

Low Value Coal Areas

Cherokee Coal Area Reserves in Place

Seam	Measured Million Tons	Indicated Million Tons	Inferred Million Tons	Total Million Tons
FU-12	0.07	0.74	----	0.81
Cow Butte (D)	1.25	5.90	5.45	12.60
Cherokee	15.21	35.96	0.12	51.29
Lower Cherokee	0.81	1.28	----	2.09
Upper Cherokee	0.85	5.93	0.70	7.48
Total	18.19	49.81	6.27	74.27

Inferred Coal Quality for Cherokee Coal Area Reserves:

Seam	BTU/lb.	Moisture	Volatiles	Carbon	Ash	Sulfur
Cow Butte	7,417	17.64	35.01	25.80	21.25	3.26
Lower Cherokee	8,293	22.37	12.80	34.85	30.42	1.66
Upper Cherokee	7,714	22.65	31.62	30.30	14.56	1.82

North Horse Butte Reserves

Seam	Measured Million Tons	Indicated Million Tons	Inferred Million Tons	Total Million Tons
Cow Creek (D)	10.96	19.31	----	30.27*
Lower Cherokee (C)	14.86	25.56	2.09	42.51*
Upper Cherokee (B)	3.11	5.85	----	8.96*
High Point (A)	0.87	1.72	----	2.59*
Total			2.09	84.33*

*These reserves include coal that is unsuitable. For unsuitable areas see Maps O-6, O-7, O-8, D-6 and 7.

Coal Quality for North Horse Butte Reserves:

Seam	BTU/lb.	Moisture	Volatiles	Carbon	Ash	Sulfur
Cow Butte	7,417	17.64	35.01	25.80	21.25	3.26
Lower Cherokee	8,293	22.37	12.80	34.85	30.42	1.66
Upper Cherokee	7,714	22.65	31.62	30.30	14.56	1.82

Coal Areas with Unknown Value

Little Shoe
Wild Horse
Kindt Basin
Continental Divide

SURFACE/SUBSURFACE COAL AREAS

Low Value Coal Areas

Red Desert/Latham

Coal data in this area is taken from a USGS Bulletin by Masursky and Pipiringos. The coal data is based on widely spaced, 60 foot drill holes. All the coal beds are in the lower 600 feet of the Wasatch Formation. The coals tend to be high sulfur, lignitic to subbituminous B-C and high in uranium content. Total federal and nonfederal reserve base for the area is 865.39 million short tons. The coal zones in this area are named Latham, Hadsell, Creston, Sourdough, and Monument.

The Latham coal zone contains a total of 340.89 million short tons. Proximate analyses of coal in this zone range from 7,780 to 8,133 BTU/lb., 22.8 to 24.1 percent moisture, 30.5 percent volatiles, 32 percent carbon, 13 to 14 percent ash, and 2.8 to 3.8 percent sulfur.

The Hadsell coal zone contains a total of 185.93 million short tons. Proximate analyses of coal in this zone have not been conducted.

The Creston coal zone contains a total of 260.78 million short tons. Proximate analyses range from 6,630 to 8,200 BTU/lb., 23.9 to 31.7 percent moisture, 26.8 to 31.1 percent volatiles, 24.8 to 32.9 percent carbon, 12 to 16.7 percent ash, 2.4 to 4.5 percent sulfur. The remainder of the reserves are in the Sourdough and Monument zones.

Sourdough

Coal data in this area is a USGS Bulletin by Masursky and Pipiringos. The coal beds are in the lower 400 feet of the Wasatch Formation and occur in four coal zones named Tierney, Sourdough, Monument, and Battle. The coal data is based on widely spaced, 60 foot drill holes. Coal tonnages in this area include federal and nonfederal reserves.

The Tierney coal zone contains only one bed which exceeds 5 feet only in one section. The reserve base for this coal zone is 3.10 million short tons.

The Sourdough coal zone contains two beds which are 5 or more feet thick in various places. The reserve base for this coal zone is 74.50 million short tons. A proximate analysis done on coal from this coal zone results in 9,000 BTU/lb., 18.7 percent moisture, 34.5 percent volatiles, 34.8 percent carbon, 12 percent ash, 2.4 percent sulfur.

The Monument coal zone contains 3 beds ranging up to 10 to 16 feet thick. The reserve base for this coal zone is 185.10 million short tons. Proximate analysis of this coal zone are approximately 8,150 BTU/lb., 20 percent moisture, 30 percent volatiles, 35 percent carbon, 14 percent ash, and 1.65 percent sulfur.

The Battle coal zone contains one bed ranging from 5 to 16 feet in thickness in the northcentral part of the area. Reserve base for this coal zone is 7.70 million short tons. Proximate analyses of this coal zone are approximately 8,800 BTU/lb., 21 percent moisture, 32 percent volatiles, 35.5 percent carbon, 11.5 percent ash, and 2.2 percent sulfur.

Mono

Coal data in this area is taken from a USGS Bulletin by Masursky and Pipiringos. The coal beds are in the lower 400 feet of the Wasatch Formation and occur in four coal zones named Tierney, Sourdough, Monument, and Battle. The coal data is based on widely spaced, 60 foot drill holes.

The Tierney coal zone contains 3 beds only one of which is over 5 feet thick and this bed exceeds 5 feet in thickness only in one section. No reserve base tonnages are associated with this coal zone.

The Sourdough coal zone contains 3 beds only one of which is generally greater than 5 feet thick. The reserve base for this coal zone is 222.62 million short tons. Proximate analyses for coal from this zone are about 8,200 BTU/lb., 23.9 percent moisture, 31.1 percent volatiles, 32.9 percent carbon, 12 percent ash, and 2.4 percent sulfur.

The Battle coal zone contains only one bed with thicknesses of 5 to 10 feet. Reserve base for this coal zone is 91.73 million short tons. A proximate analysis of this bed resulted in 8,810 BTU/lb., 20.3 percent moisture, 31.2 percent volatiles, 30.4 percent carbon, 12 percent ash, and 2.1 percent sulfur.

SUBSURFACE COAL AREAS

High Value Coal Areas

Atlantic Rim Reserves in Place

Seam	Measured Million Tons	Indicated Million Tons	Inferred Million Tons	Total Million Tons
Robertson (Z)	15.84	28.56	----	44.40
Z2	----	0.08	----	0.08
Z1	0.89	1.19	0.13	2.21
Almond 1 (Y)	13.42	30.32	3.63	47.37
Almond 3 (X)	5.08	12.41	0.16	17.65
W	1.82	2.50	----	4.32
Total	37.05	75.06	3.92	116.03

Coal quality: 10,277 BTU/lb., 13.41 percent moisture, 34.47 percent volatiles, 43.32 percent carbon, 8.79 percent ash, and 1.02 percent sulfur.

Northeast Cow Creek Reserves in Place

Seam	Measured Million Tons	Indicated Million Tons	Inferred Million Tons	Total Million Tons
Robertson 1	26.23	65.60	3.00	94.83
Robertson 2	4.01	16.20	0.50	20.71
Almond 1	40.05	101.42	4.17	145.64
Almond 2	10.88	54.74	9.46	75.08
Almond 4	0.99	2.24	----	3.23
Almond Local 1	1.66	4.40	0.22	6.28
Total	83.82	244.60	17.35	345.77

Coal quality: 10,400 BTU/lb., 3.7 to 11.5 percent ash, and 0.5 percent sulfur.

Moderate Value Coal Areas

China Butte Reserves in Place

Seam	Measured Million Tons	Indicated Million Tons	Inferred Million Tons	Total Million Tons
Daleys Ranch (G)	2.36	6.55	2.00	10.91
Separation Creek (D1)	20.45	37.39	2.29	60.13
Separation Creek 1	0.80	----	----	0.80
Fillmore Ranch (B)	57.98	181.53	69.43	308.94
Muddy Creek (C)	22.70	48.78	14.92	86.40
Red Rim (F2)	22.76	94.39	57.26	174.41
FU-1	5.21	5.61	3.22	14.04
Olsen Draw (E1)	4.15	19.38	3.66	27.19
Total	136.41	393.63	152.78	682.82

Coal Quality for China Butte Reserves:

Seam	BTU/lb.	Moisture	Volatiles	Carbon	Ash	Sulfur
Fillmore Ranch	8,337	26.42	----	----	7.28	0.36
Muddy Creek	8,685	25.03	30.66	38.53	5.78	0.61
Separation Creek	8,655	22.65	29.92	38.65	5.97	0.42
Red Rim	8,384	21.64	28.46	38.42	11.48	0.45

Red Rim Reserves in Place

Seam	Measured Million Tons	Indicated Million Tons	Inferred Million Tons	Total Million Tons
Daleys Ranch (G)	17.89	42.73	19.20	79.82
Red Rim (F2)	48.24	122.06	96.57	266.87
F1	7.04	10.81	17.76	35.61
E2	4.37	7.23	0.03	11.63
Fu-2	0.24	0.19	----	0.43
H	0.40	2.41	----	2.81
Olsen Draw (E1)	5.83	12.68	2.80	21.31
Fillmore Ranch (B)	13.32	20.86	15.23	49.41
Separation Creek (D1)	10.69	4.28	----	14.97
Muddy Creek (C)	0.75	0.55	----	1.30
Total	108.77	223.80	151.59	484.16

Coal Quality for Red Rim Reserves:

Seam	BTU/lb.	Moisture	Volatiles	Carbon	Ash	Sulfur
Daleys Ranch	9,496	17.85	32.36	43.01	6.78	0.33
Red Rim	9,607	16.57	32.79	43.46	7.18	0.24
F1	9,786	15.97	32.57	44.69	6.77	0.15
Separation Creek	8,103	26.55	28.17	38.16	7.12	0.15
Muddy Creek	7,319	26.91	27.90	31.49	13.70	1.71
Fillmore Creek	8,184	27.00	29.26	37.62	6.12	0.30

Cedars Reserves in Place

Seam	Measured Million Tons	Indicated Million Tons	Inferred Million Tons	Total Million Tons
Red Rim	12.49	57.66	126.82	196.97
Olsen Draw	4.67	17.54	.54	27.61
Separation Creek	4.01	10.10	.01	14.12
Lance 2	.17	.73	----	.9
Muddy Creek	1.63	4.91	.02	6.56
Fillmore Creek	24.45	153.65	315.28	493.38
Fort Union 1	.42	----	----	----
Total	47.84	244.59	448.03	740.46

Coal Quality for Cedars Reserves:

Seam	BTU/lb.	Moisture	Volatiles	Carbon	Ash	Sulfur
Red Rim	8,646	24.3	29.7	33.5	7.6	0.70
Separation Creek	8,699	22.3	----	----	10.1	0.80
Fillmore Ranch	9,206	22.7	30.4	42.1	4.8	0.20

Stagecoach Reserves in Place

Seam	Measured Million Tons	Indicated Million Tons	Inferred Million Tons	Total Million Tons
Red Rim	1.92	8.33	5.24	15.49
Olsen Draw	.17	1.07	----	1.24
Separation Creek	1.89	5.17	1.40	8.46
Separation Creek 2	.09	----	----	.09
Separation Creek 3	.21	.02	----	.23
Muddy Creek	.30	.10	----	.4
Fillmore Ranch	15.08	67.16	227.58	309.82
Total	19.66	81.85	234.22	335.73

Coal Quality for Stagecoach Reserves:

Seam	BTU/lb.	Moisture	Volatiles	Carbon	Ash	Sulfur
Red Rim	8,646	24.3	29.7	33.5	7.6	0.70
Separation Creek	8,699	22.3	----	----	10.1	0.80
Fillmore Ranch	9,206	22.7	30.4	42.1	4.8	0.20

Low Value Coal Areas

Cherokee Reserves

Seam	Measured Million Tons	Indicated Million Tons	Inferred Million Tons	Total Million Tons
FU-2	----	1.42	2.07	3.49
FU-3	2.04	5.09	7.36	14.49
FU-9	----	.64	.14	.78
Horse Butte (E)	.16	4.20	3.26	7.62
Cow Butte (D)	1.65	16.33	13.22	31.2
Lower Cherokee (C)	.37	9.37	20.11	29.85
Upper Cherokee (B)	----	.31	.27	.58
FU-8	1.39	2.69	9.59	13.67
FU-12	.95	1.52	----	2.47
Cherokee	2.43	24.44	18.42	45.29
Totals	8.99	66.01	74.44	149.44

Coal Quality for Cherokee Reserves:

Seam	BTU/lb.	Moisture	Volatiles	Carbon	Ash	Sulfur
Horse Butte	7,613	18.86	33.08	28.25	19.80	----
Cow Butte	7,417	17.64	35.01	25.80	21.25	3.26
Lower Cherokee	8,293	22.37	12.80	34.85	30.42	1.66
Upper Cherokee	7,714	22.65	31.62	30.30	14.50	1.82

North Horse Butte Reserves in Place

Seam	Measured Million Tons	Indicated Million Tons	Inferred Million Tons	Total Million Tons
Fort Union 2	----	----	14.79	14.79
Fort Union 3	----	14.39	61.48	75.87
Fort Union 4	----	----	0.84	0.84
Fort Union 5	----	----	4.81	4.81
Fort Union 6	----	----	2.97	2.97
Fort Union 7	----	----	0.77	0.77
Fort Union 9	----	----	6.88	6.88
Cow Butte (D)	7.22	84.63	9.81	51.66
Lower Cherokee (C)	3.10	17.05	2.57	22.72
Upper Cherokee (B)	2.41	9.69	0.62	12.72
High Point (A)	0.64	3.30	0.17	4.11
Total	13.37	79.06	105.71	198.14

Coal Quality for North Horse Butte Reserves:

Seam	BTU/lb.	Moisture	Volatiles	Carbon	Ash	Sulfur
Cow Butte	7,417	17.64	35.01	25.80	21.28	3.26
Lower Cherokee	8,293	22.37	12.80	34.85	30.42	1.66
Upper Cherokee	7,714	22.65	31.62	30.30	14.59	1.82
High Point	7,782	15.87	34.76	29.01	20.36	3.33

Continental Divide Reserves in Place

Seam	Measured Million Tons	Indicated Million Tons	Inferred Million Tons	Total Million Tons
Nebraska	2.33	11.23	0.52	14.08
B	0.10	0.24	----	0.34
Total	2.43	11.47	0.52	14.42

Coal quality: 9,722 BTU/lb., 19.2 percent moisture, 36.46 percent volatiles, 40.56 percent carbon, 3.78 percent ash, and 0.34 percent sulfur.

Indian Springs

Coal beds of both the Fort Union and Lance-Fox Hills Formations outcrop in this area. The coals of the Fort Union Formation are more consistent laterally and also thicker. The total reserve base for this area is 6.98 million short tons. Coal quality: 9,496 to 10,294 BTU/lb., 0.14 to 0.33 percent sulfur, 1.60 to 6.78 percent ash, 43 to 49.28 percent carbon, 31.88 to 32.79 percent volatiles, and 15.97 to 17.85 percent moisture.

Coal Areas with Unknown Value

Hansen Draw
Kindt Basin

TABLE 1-2

APPLICATION OF UNSUITABILITY CRITERIA
Competitive Federal Coal Areas

Criterion	Surface Mining Methods				Subsurface Mining Methods				Limited Surface Operations and Impacts Associated with Subsurface Mining
	Unsuitable		Acceptable		Unsuitable		Acceptable		Acceptable
	Acres	Million Tons	Acres	Million Tons	Acres	Million Tons	Acres	Million Tons	Acres
1. Federal Land Systems	0		232,960	2,800	0		395,360	5,600	0
2. Rights-of-Way & Easements	2,000	Unknown	230,960	2,800	2,000	Unknown	393,360	5,600	0
3. Buffer Zones for Rights-of-Way, Communities and Buildings	800	Unknown	230,160	2,800	800	11	394,560	5,589	0
4. Wilderness Study Areas	0	0	232,960	2,800	0	0	395,360	5,600	0
5. Scenic Areas	0	0	232,960	2,800	0	0	395,360	5,600	0
6. Land Used for Scientific Study	0	0	232,960	2,800	0	0	395,360	5,600	0
7. Historic Lands & Sites	600	6	232,360	2,794	0	0	395,360	5,600	0
8. Natural Areas	0		232,960	2,800	0	0	395,360	5,600	0
9. Federally Listed Endangered Species Habitat	0		232,960	2,800	0	0	395,360	5,600	0
10. State Listed Endangered Species Habitat	0		232,960	2,800	0	0	395,360	5,600	0
11. Bald & Golden Eagle Nests	4,390	53	228,570	2,747	0	0	395,360	5,600	6,150
12. Bald & Golden Eagle Roost & Concentration Areas	0		232,960	2,800	0	0	395,360	5,600	0
13. Falcon Cliff Nesting Sites	1,835	22	231,125	2,778	0	0	395,360	5,600	2,720
14. Migratory Bird Habitat	19,900	241	213,060	2,559	0	0	395,360	5,600	20,100
15. Habitat for State High-Interest Wildlife	0		232,960	2,800	0	0	395,360	5,600	19,680
16. Floodplains	400	5	232,560	2,795	0	0	395,360	5,600	0
17. Municipal Watersheds	0		232,960	2,800	0	0	395,360	5,600	0
18. National Resource Waters	0		232,960	2,800	0	0	395,360	5,600	0
19. Alluvial Valley Floors	0		232,960	2,800	0	0	395,360	5,600	0
20. State-Proposed Criteria	0		232,960	2,800	0	0	395,360	5,600	0

TABLE 1-3

SUMMARY OF RESULTS - COAL SCREENINING PROCESS*

Coal Screening Process	Competitive Federal Coal Areas			
	Surface		Subsurface	
	Acres	Tons (Millions)	Acres	Tons (Millions)
Known & Assumed High & Moderate Coal Development Potential	231,680	2,800	394,720	5,600
Unsuitable Areas	29,925	300	2,800	280
Unsuitable for Surface Operations Impacts Only	600	6	600	6
Unacceptable Areas	39,360	400	21,600	216
Total Area & Federal Coal Excluded	69,885	706	25,000	250
Deferred Areas (Producing Oil and Gas Fields)	30,720	307	36,640	627
Deferred Areas (Elk Crucial Winter Range)	56,640	385	82,400	1,431
Remaining Area & Federal Coal Available for Coal Development	74,435	784	219,960	2,792

*No areas were found to be unsuitable or unacceptable for PRLA areas federal surface - state coal areas, or nonproducing leases (please see COAL MANAGEMENT DECISIONS and PROCEDURES section for detailed discussion of these areas).

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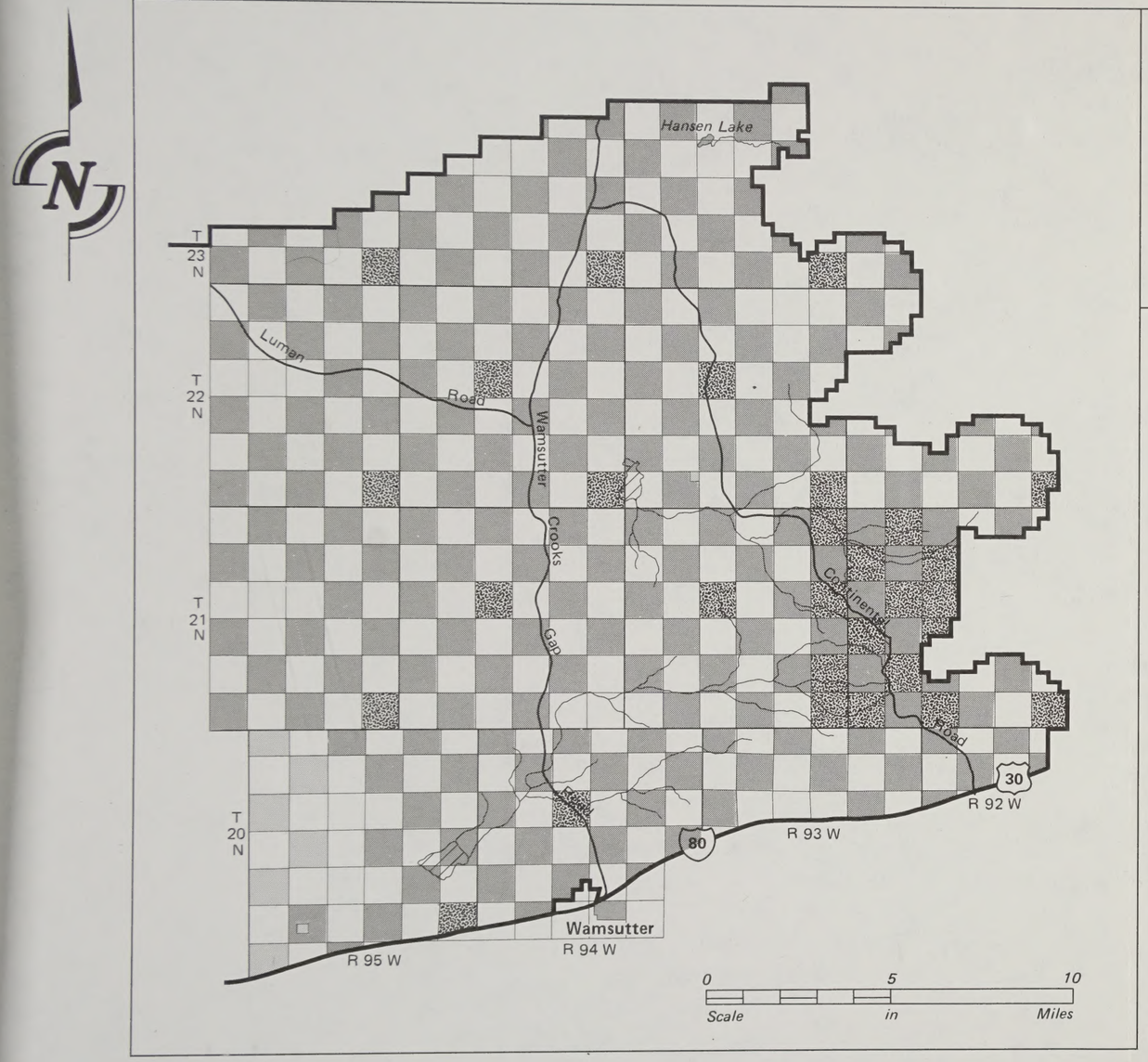
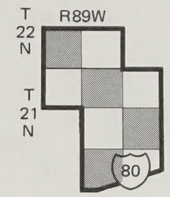
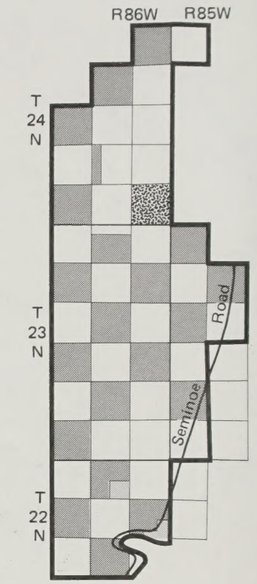
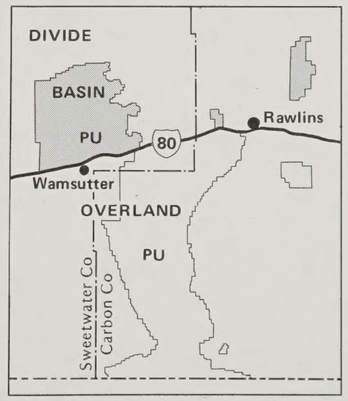








Federal Surface Federal Coal

Federal Surface State Coal

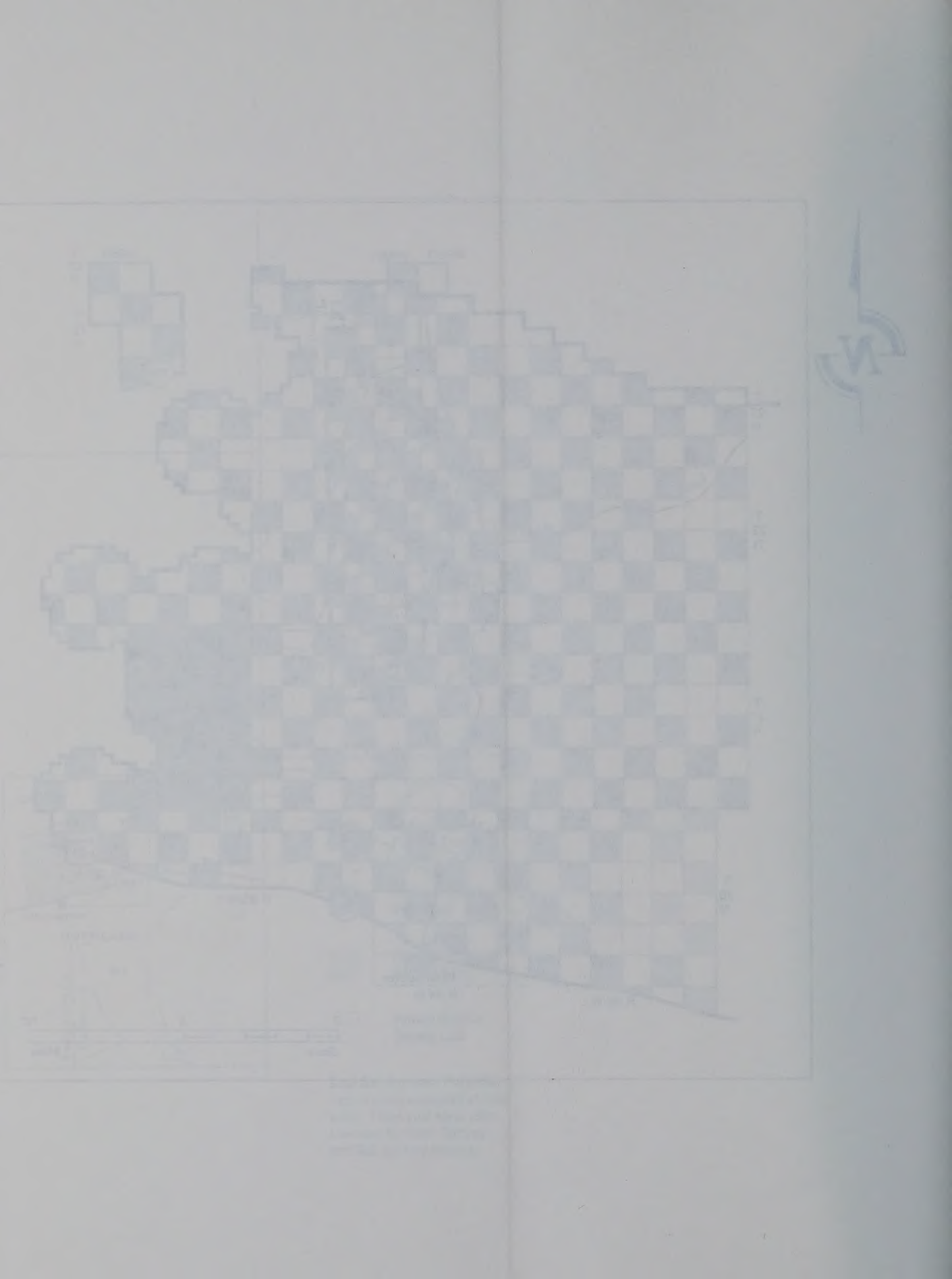
Private Surface Federal Coal

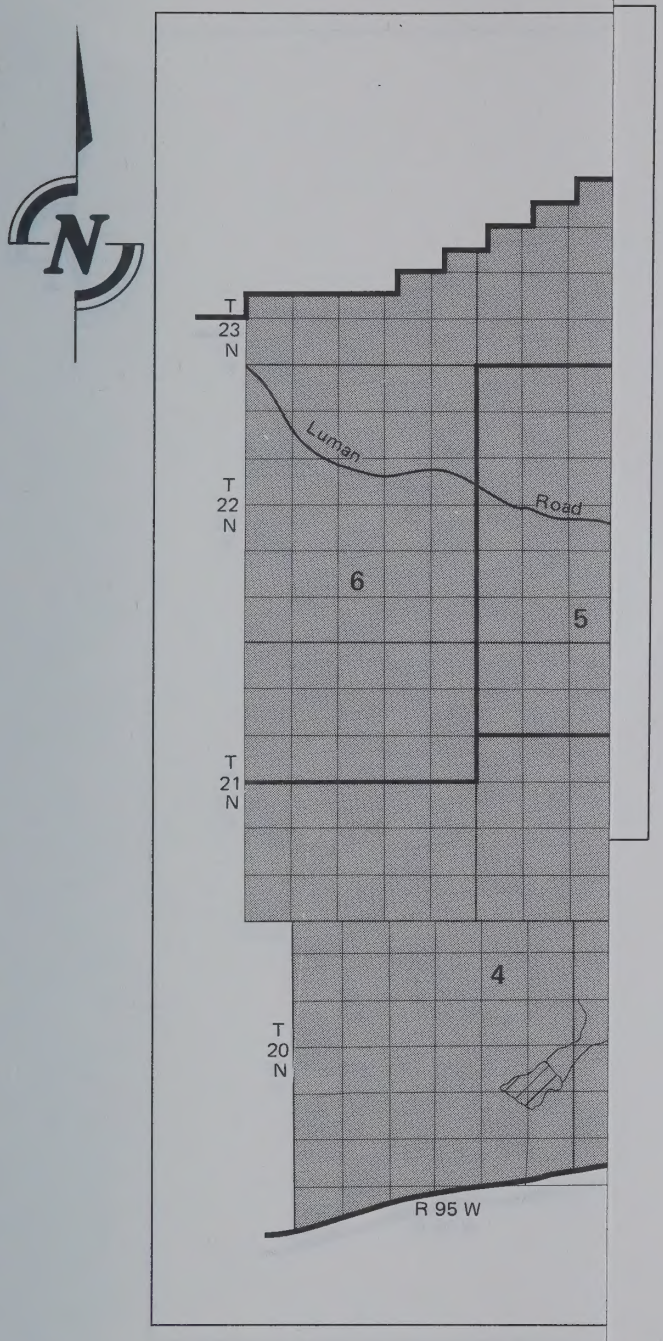
Private Surface Private Coal

Coal Development Potential data is being compiled at this time. These coal areas were reviewed for both Surface and Sub-Surface Mining.

MAP D–1 thru 3

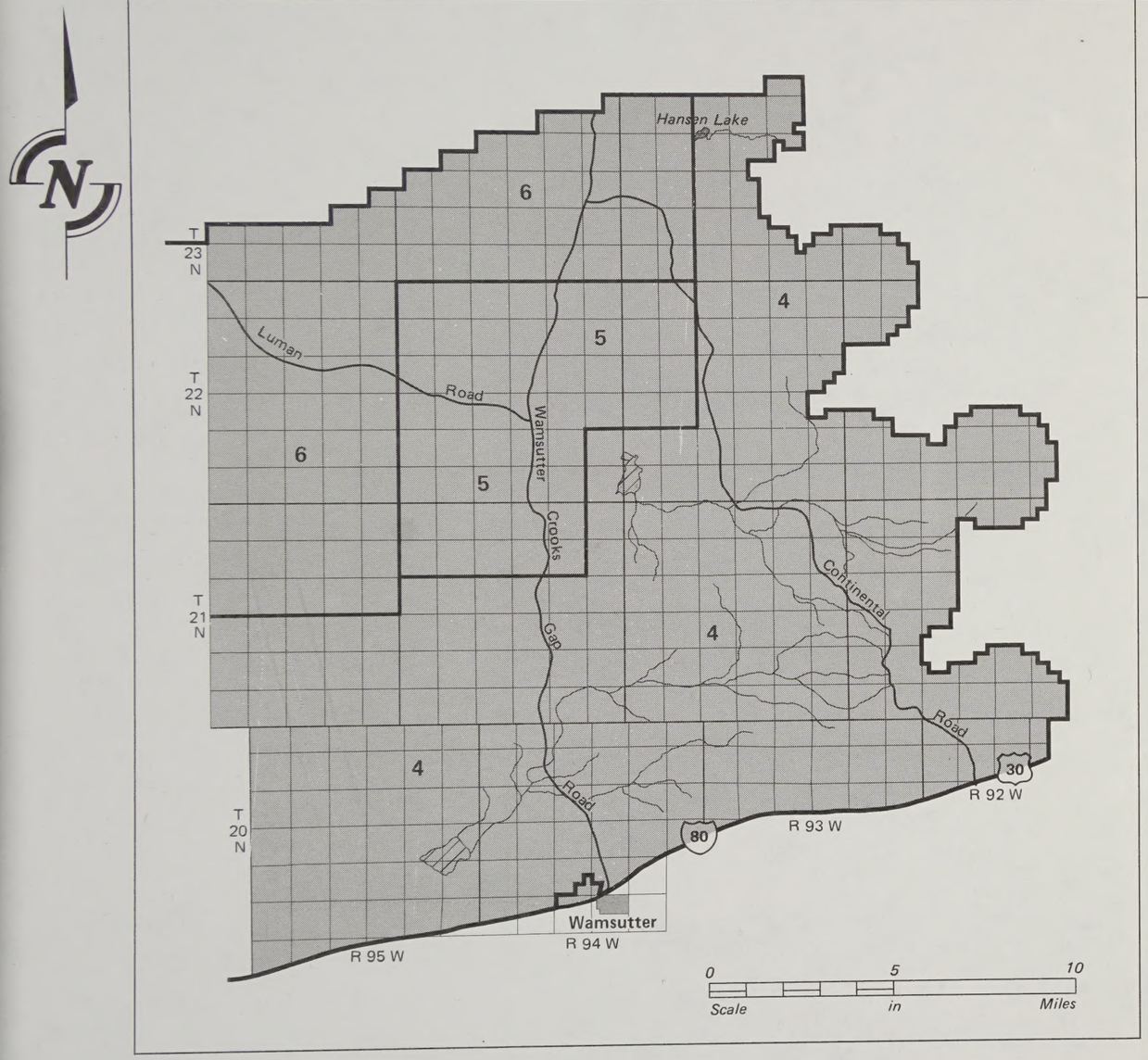
LAND and COAL OWNERSHIP and COAL DEVELOPMENT POTENTIAL

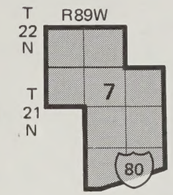


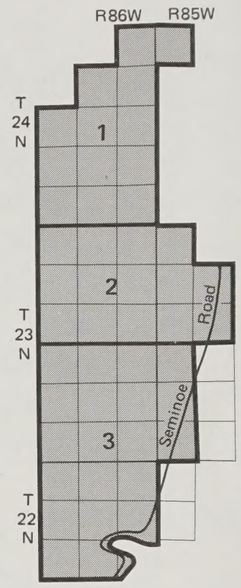


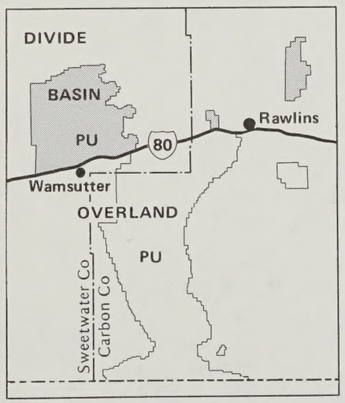
MAP D–4 and 5

SURFACE and SUB–SURFACE COAL AREAS









1 Corral Canyon

2 Little Shoe

3 Wild Horse

4 Red Desert Latham

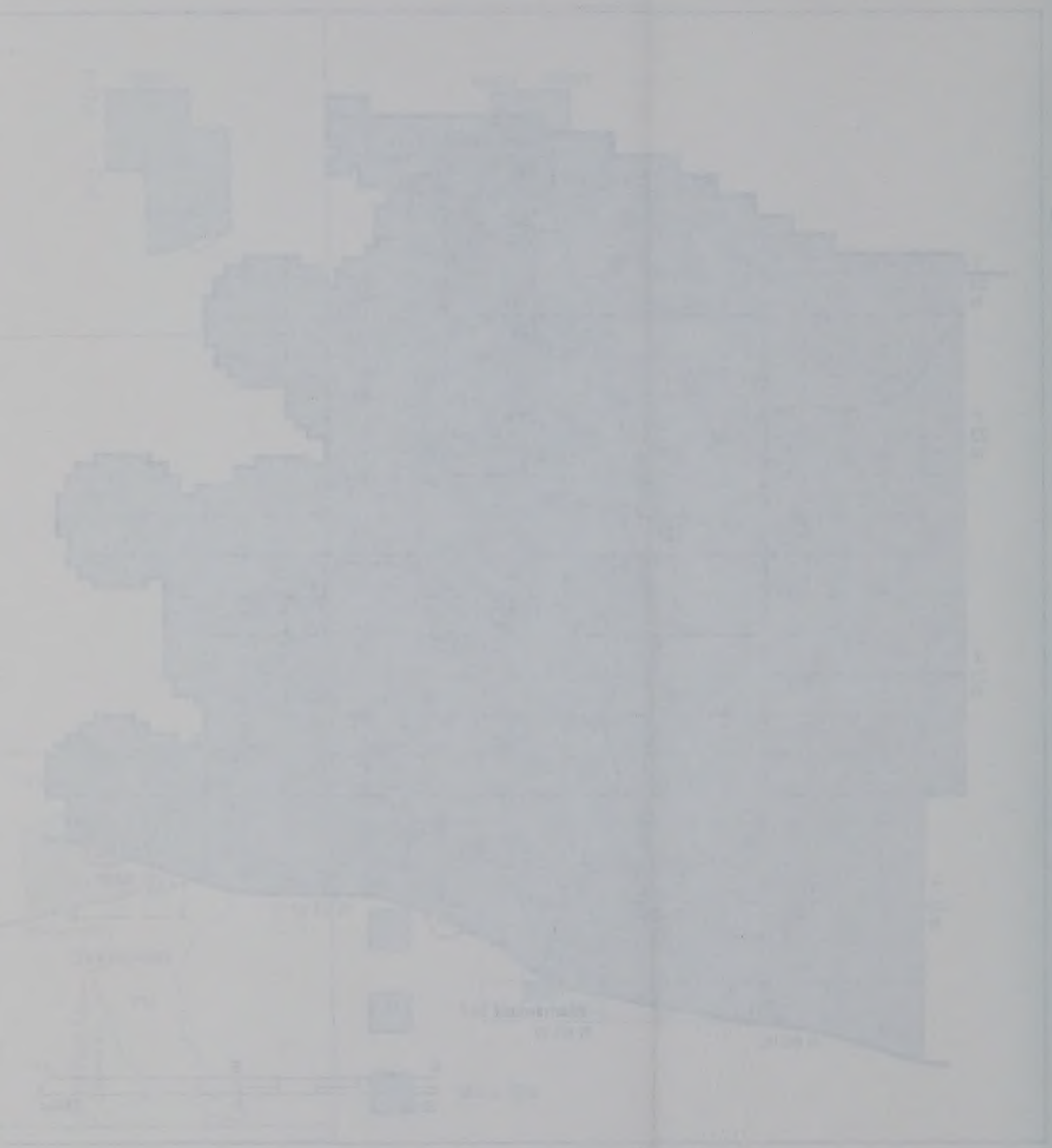
5 Mono Site

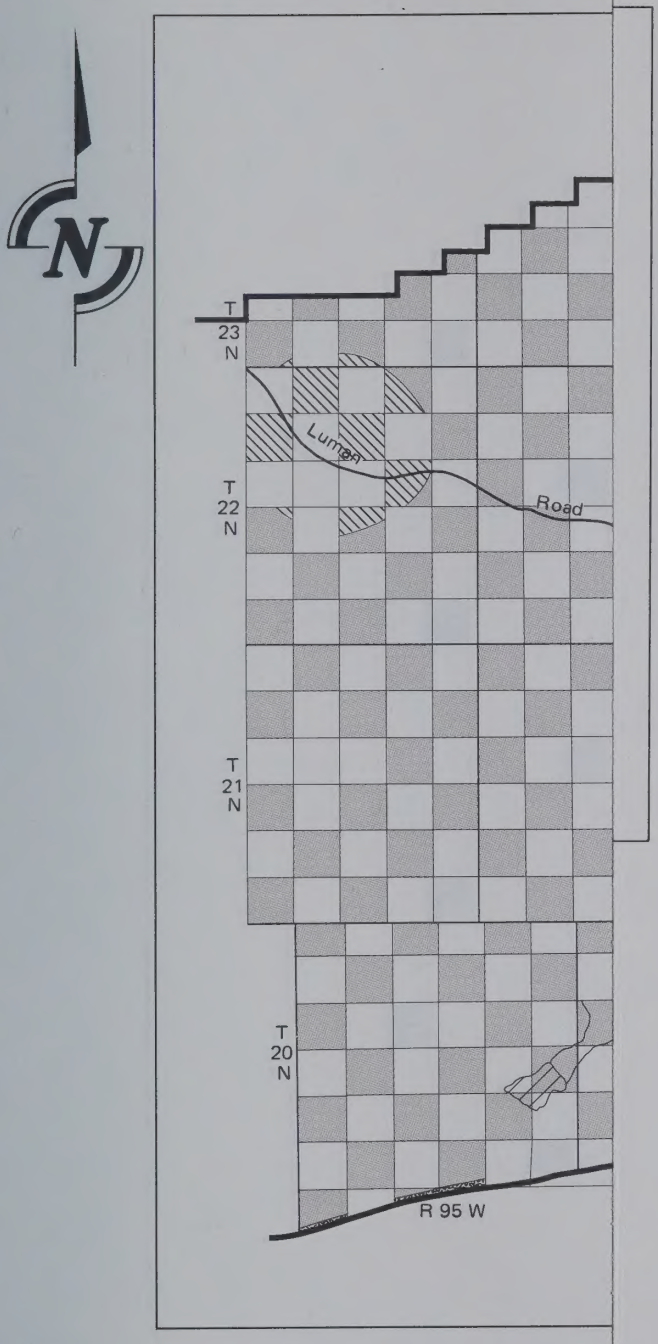
6 Sourdough

7 Indian Springs

MAP D–4 and 5

SURFACE and SUB–SURFACE COAL AREAS



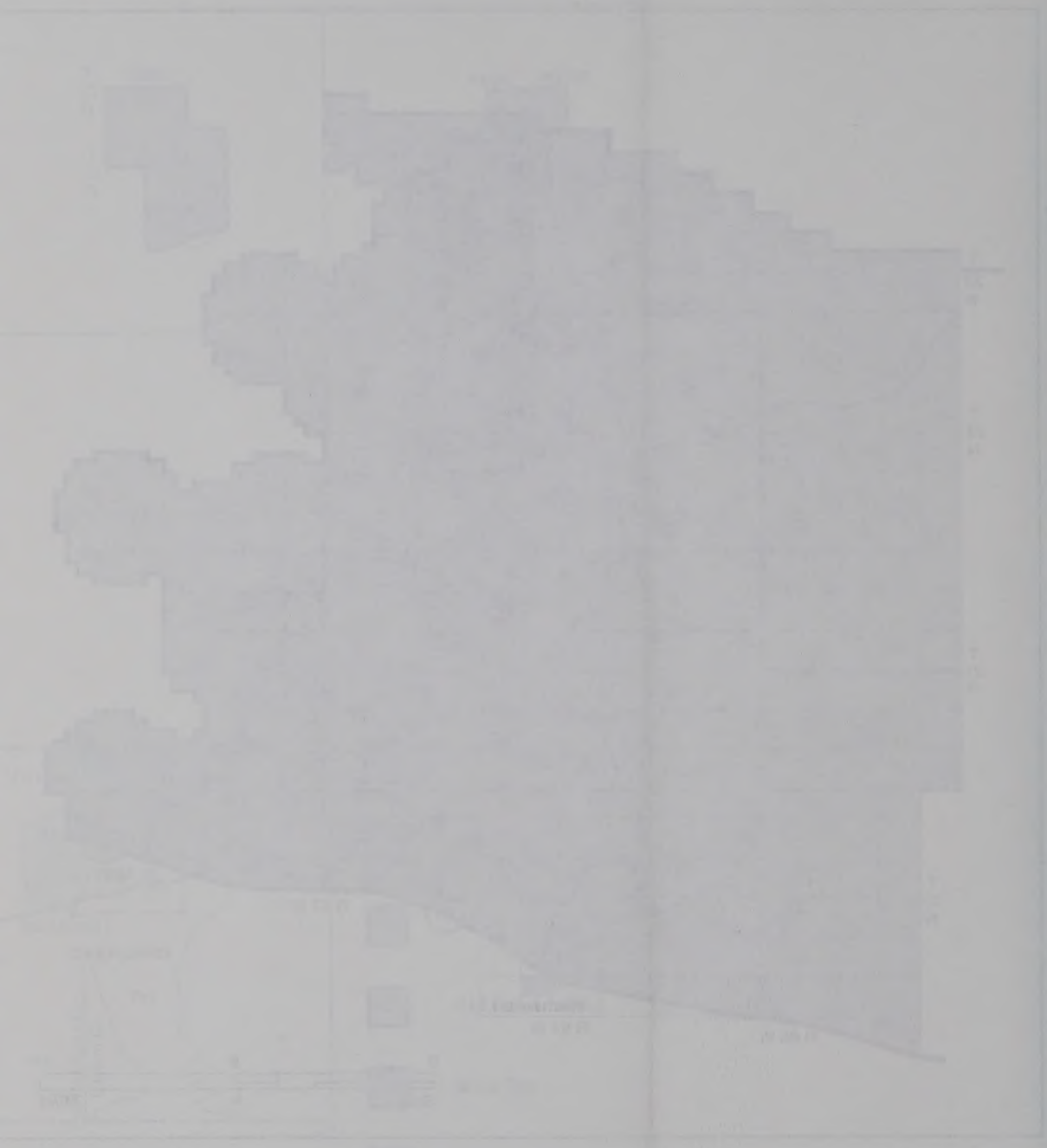


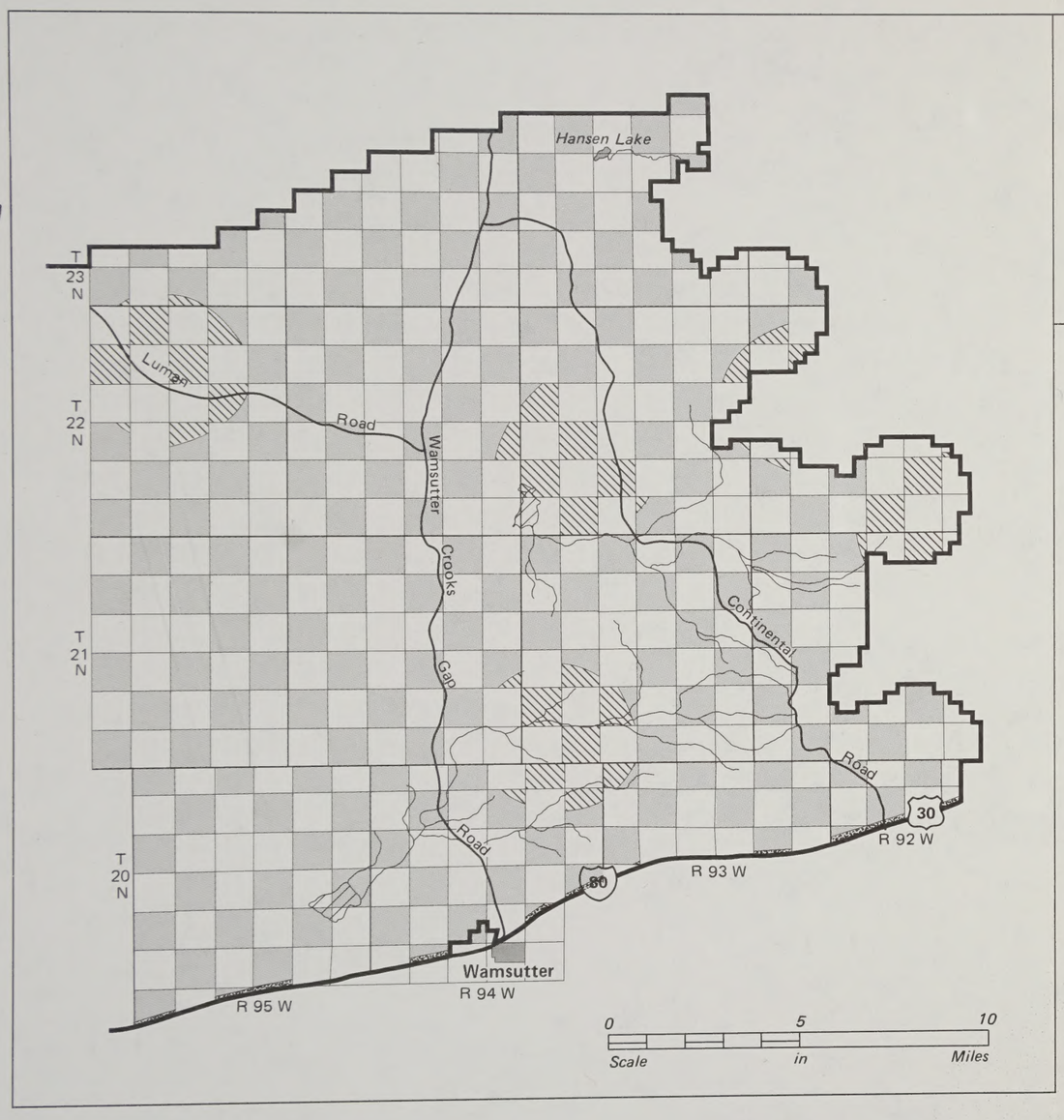
SUB–SURFACE MINING METHODS

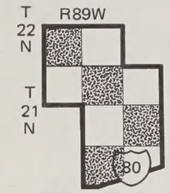
- Acceptable Areas with Limited Surface Occupancy (Criteria 2, 3, 11, 14, 16)
- Acceptable Areas with Limited Surface Occupancy (Multiple Use Conflicts)
- Acceptable Areas (Pending Field Exams)
- Acceptable Areas (Special Stipulations)
- Acceptable Areas

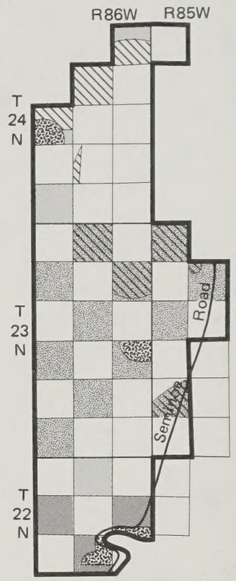
MAP D–6 and 7

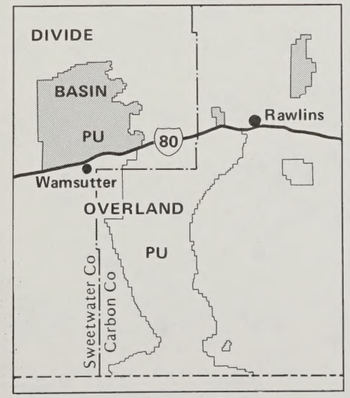
FEDERAL COAL MANAGEMENT DECISIONS:
SURFACE and SUB–SURFACE MINING
(Competitive Coal Areas)











SURFACE MINING METHODS

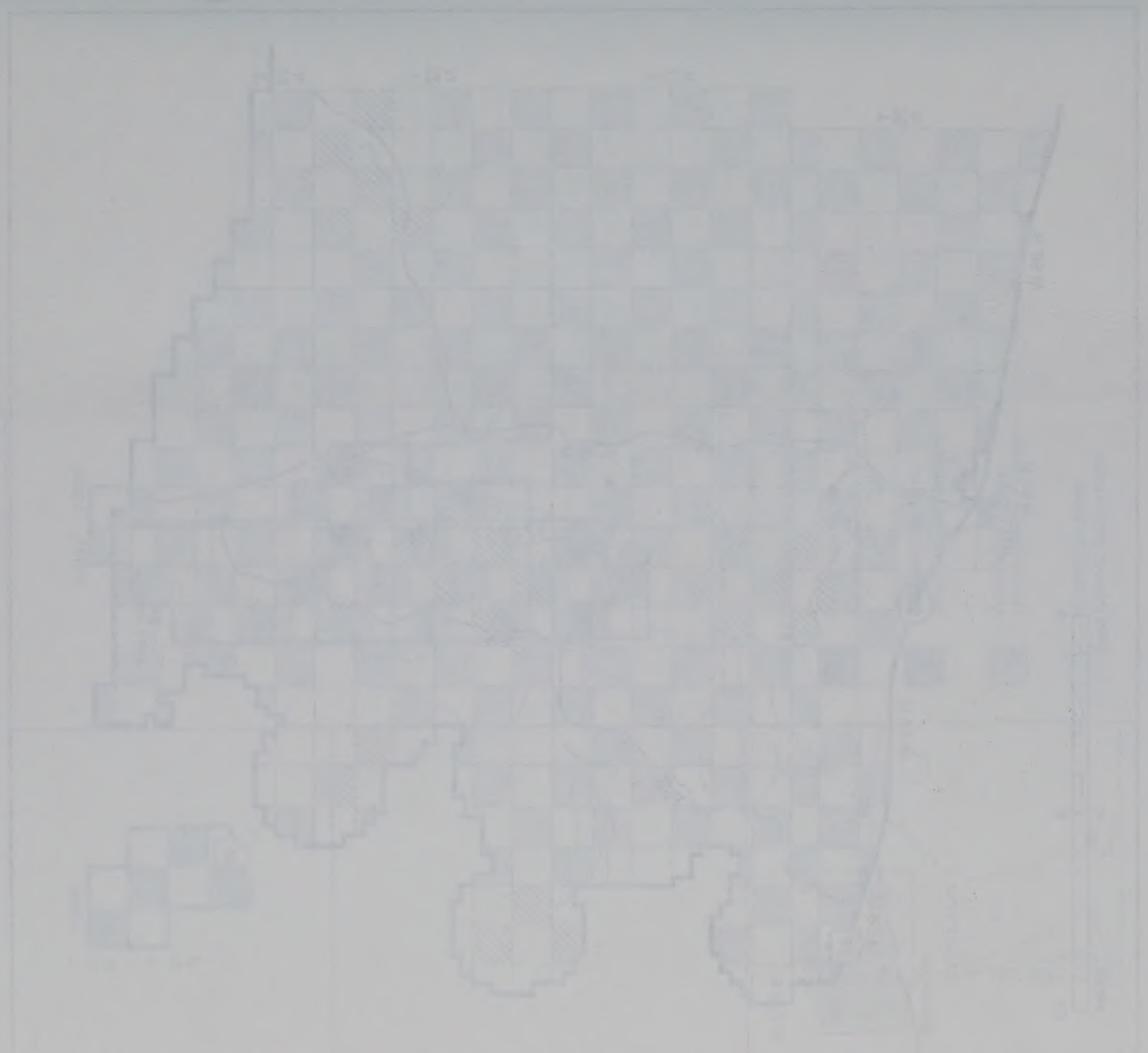
- Unsuitable Areas (Criteria 2, 3, 11, 14, 16)
- Unacceptable Areas (Multiple Use Conflicts)
- Acceptable Areas (Pending Field Exams)
- Acceptable Areas (Special Stipulations)
- Acceptable Areas

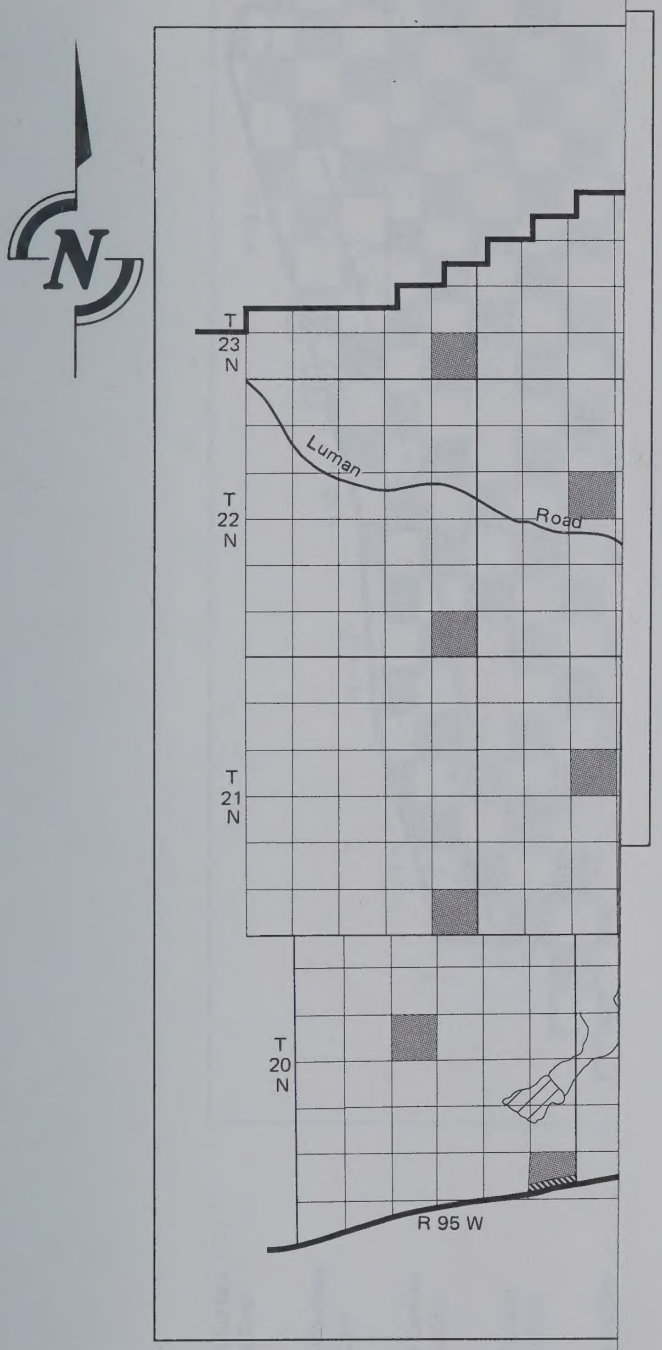
SUB–SURFACE MINING METHODS

- Acceptable Areas with Limited Surface Occupancy (Criteria 2, 3, 11, 14, 16)
- Acceptable Areas with Limited Surface Occupancy (Multiple Use Conflicts)
- Acceptable Areas (Pending Field Exams)
- Acceptable Areas (Special Stipulations)
- Acceptable Areas

MAP D–6 and 7

FEDERAL COAL MANAGEMENT DECISIONS:
SURFACE and SUB–SURFACE MINING
(Competitive Coal Areas)





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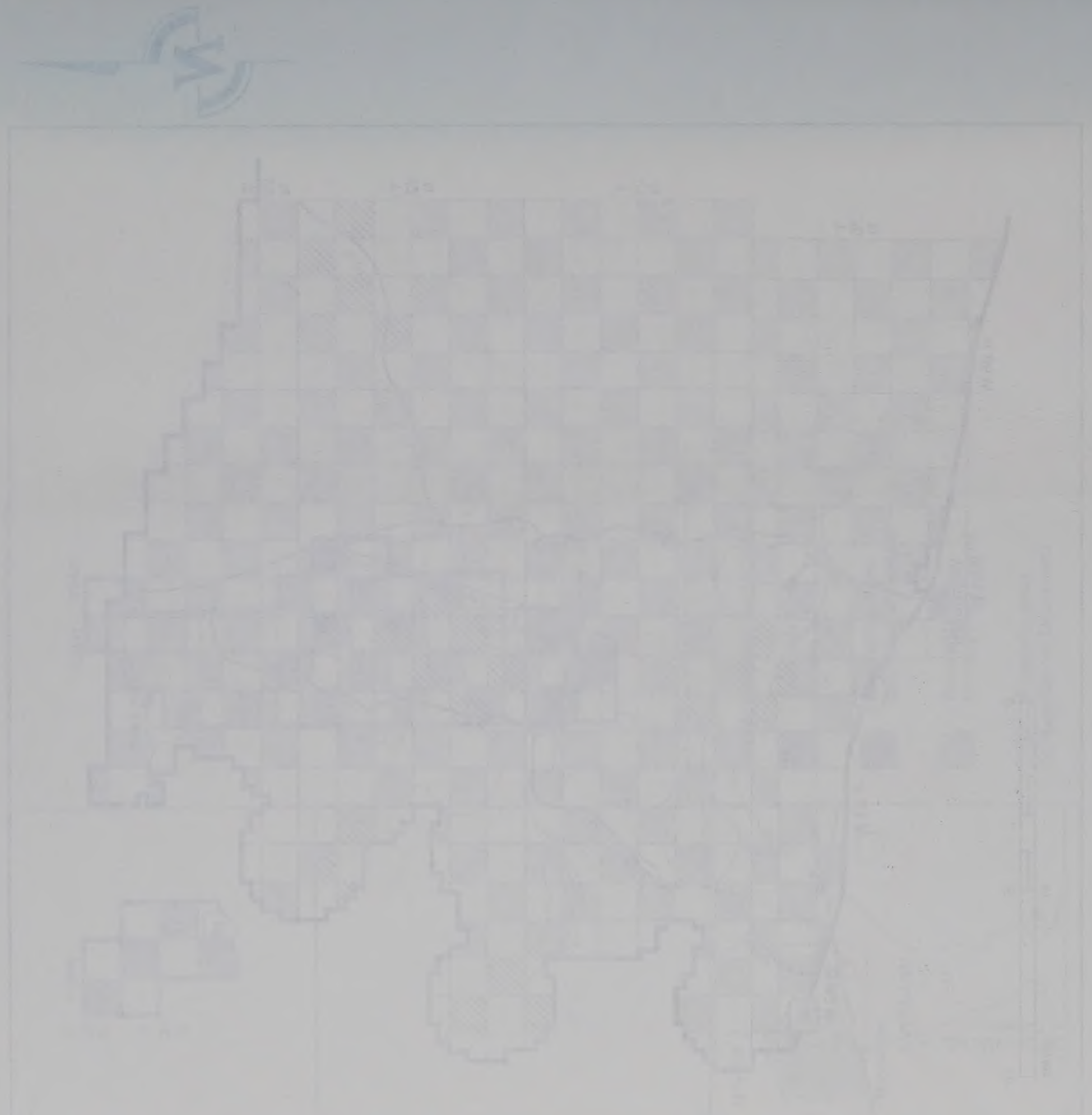
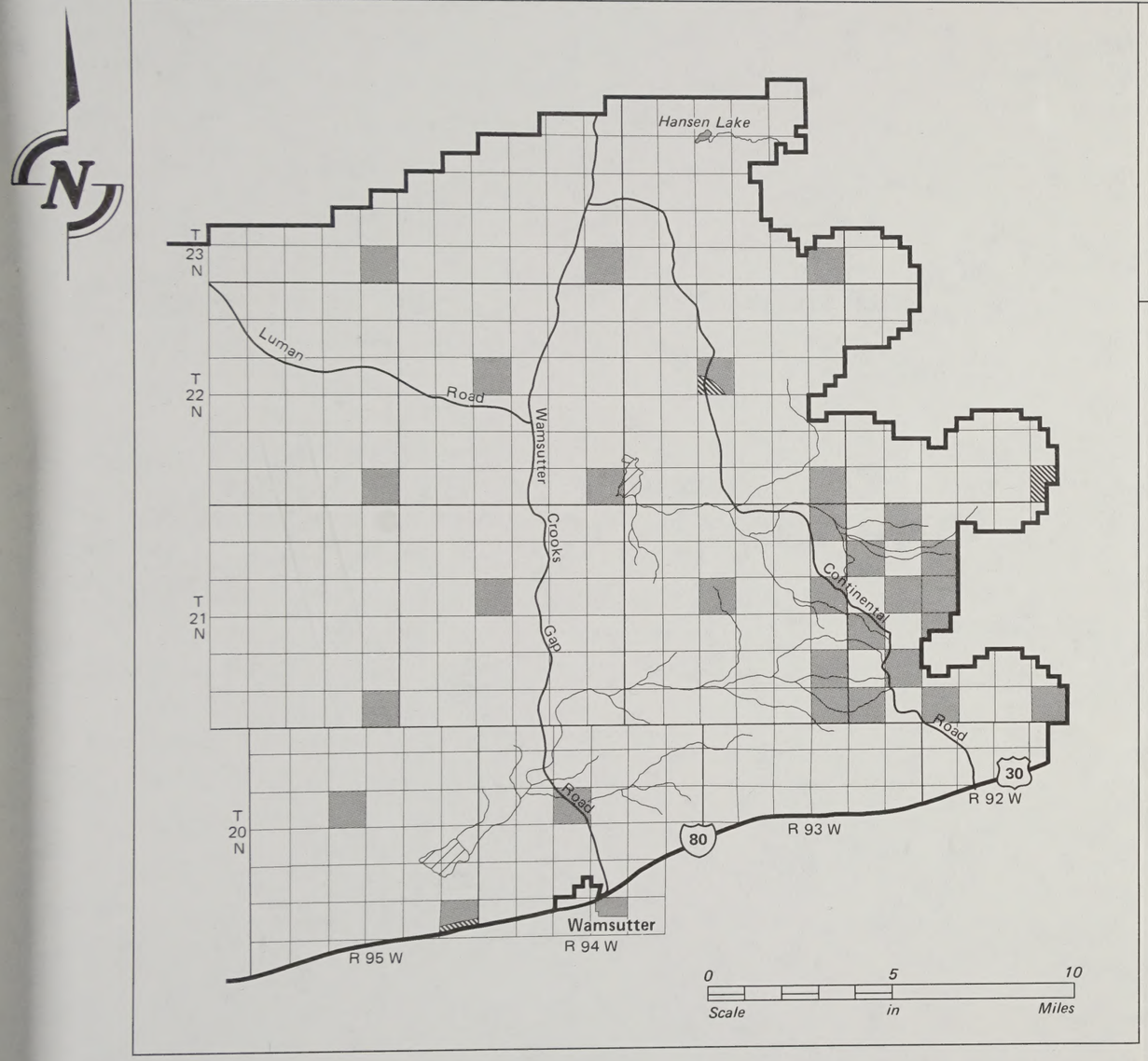
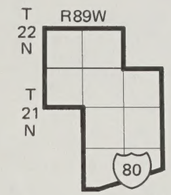
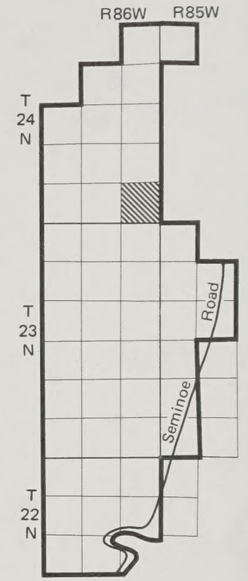
MAP D–8

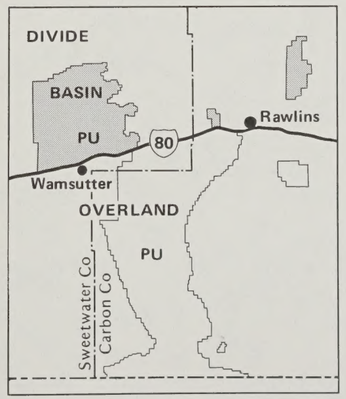
FEDERAL SURFACE–STATE COAL AREAS:
RESULTS of COAL UNSUITABILITY REVIEW
and MULTIPLE USE CONFLICT EVALUATION











Resource Conflict
(Multiple Use Conflicts)

No Conflict

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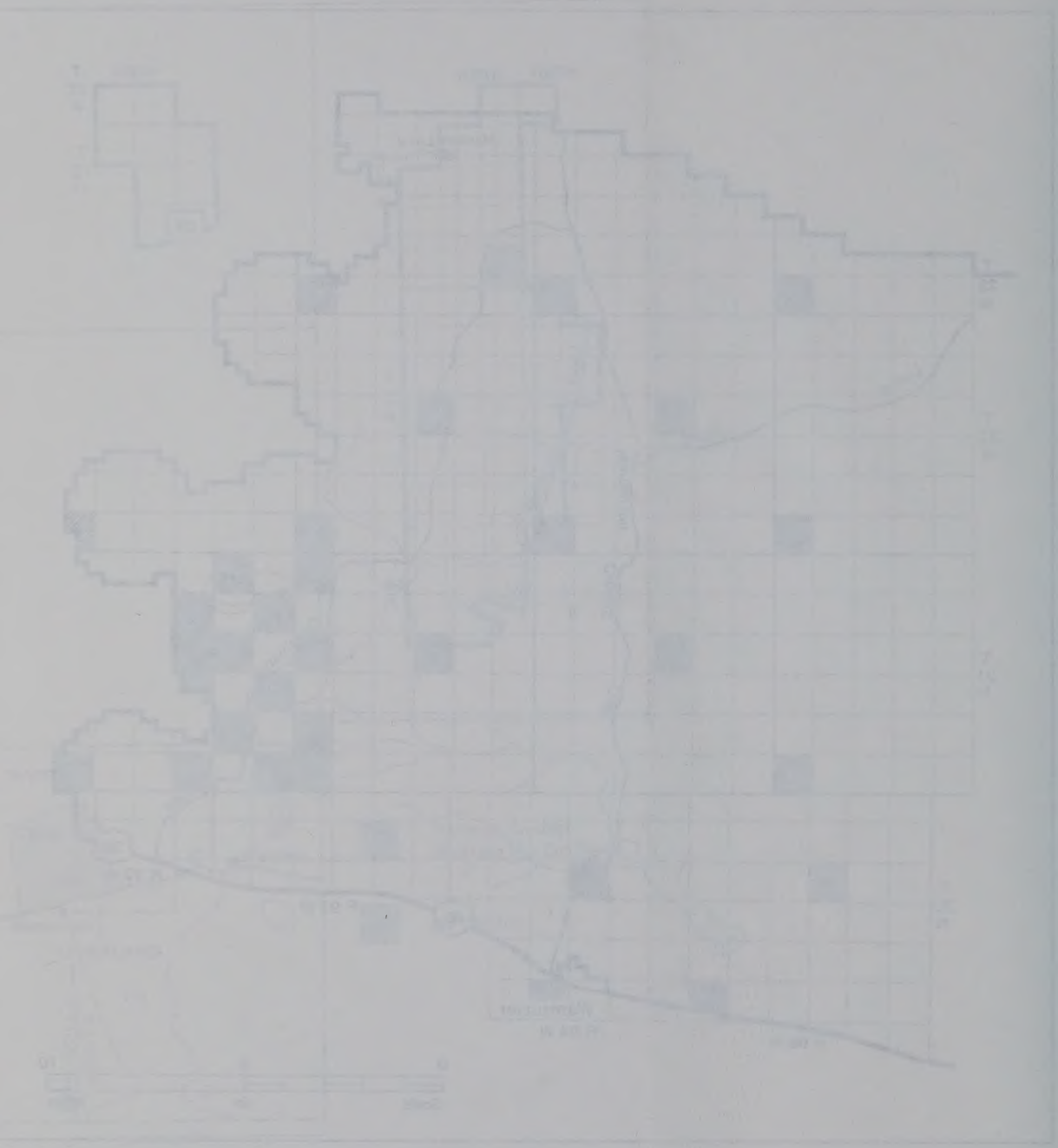
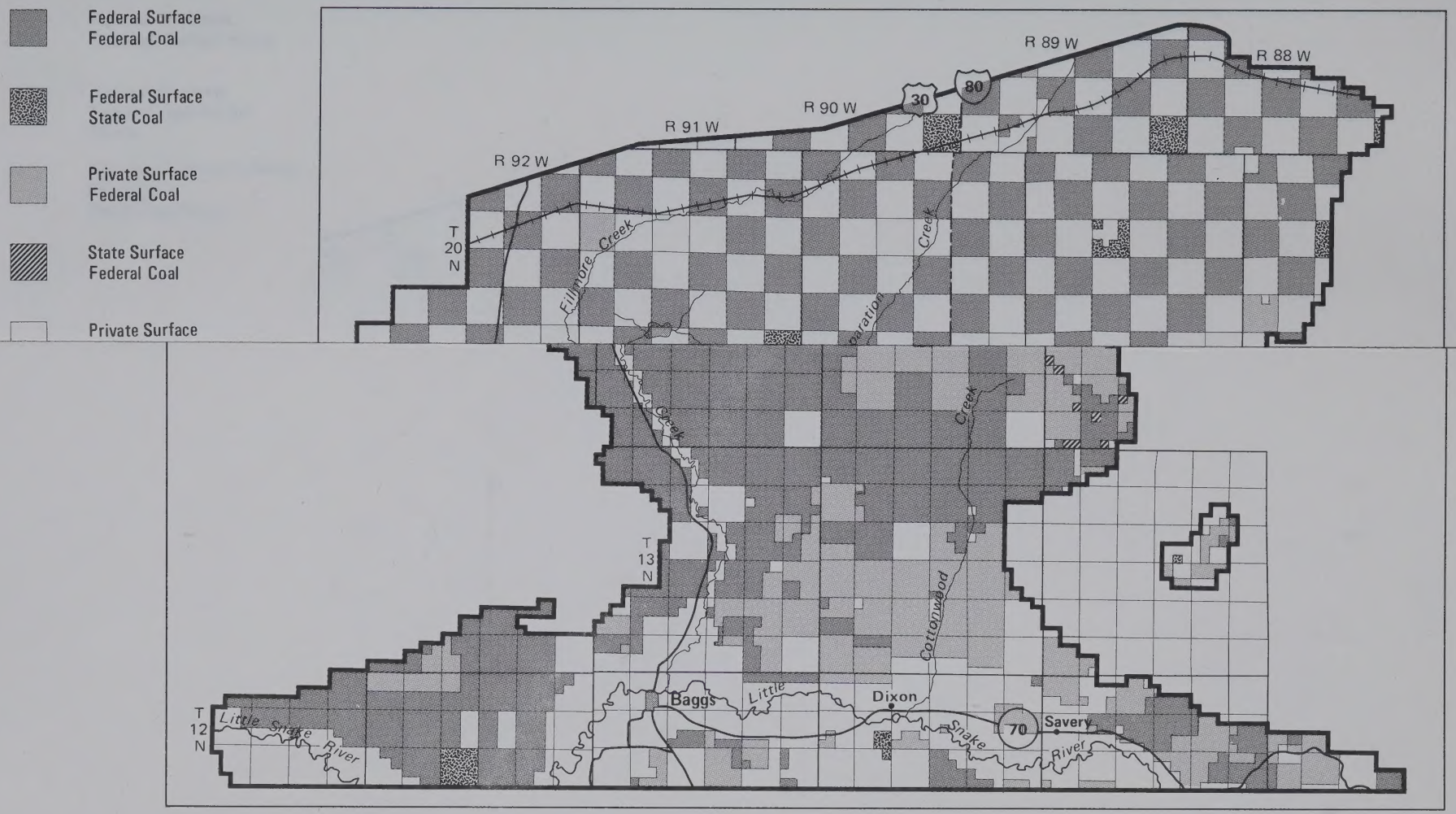
MAP D–8

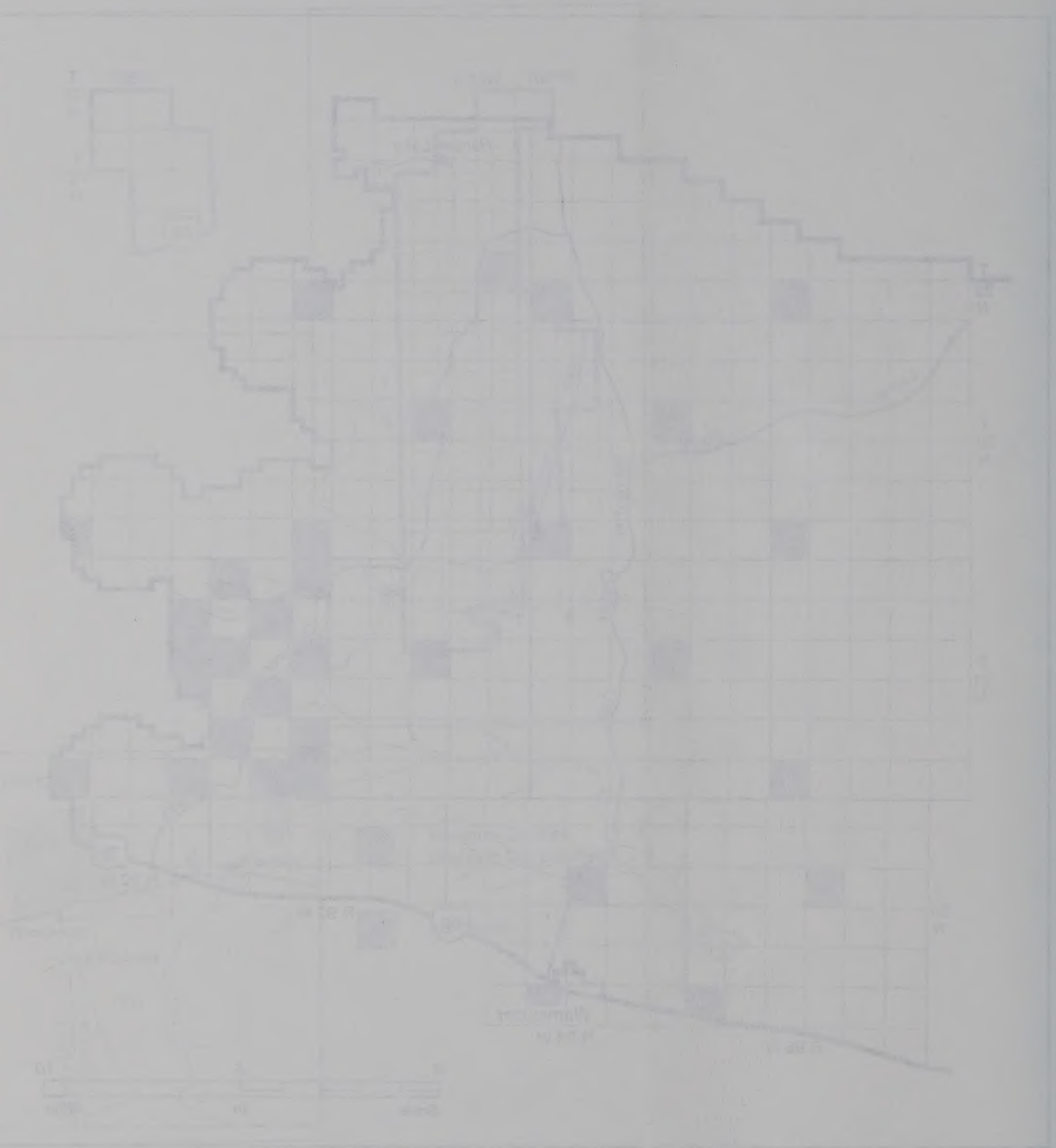
FEDERAL SURFACE–STATE COAL AREAS:
RESULTS of COAL UNSUITABILITY REVIEW
and MULTIPLE USE CONFLICT EVALUATION





MAP O–1

LAND and COAL OWNERSHIP



Federal Surface
Federal Coal

Federal Surface
State Coal

Private Surface
Federal Coal

State Surface
Federal Coal

Private Surface
Private Coal

R 92 W
R 91 W
R 90 W
R 89 W
R 88 W
R. 93 W.
T 20 N
T 19 N
T 18 N
T 17 N
T 16 N
T 15 N
T 14 N
T 13 N
T 12 N
30
80
789
70
SWEETWATER COU
CARBON COUNTY
Fillmore Creek
Separation Creek
Fillmore Creek
Muddy Creek
Creek
Dry Cow Creek
Cow Creek
Cow Creek
Cherokee Creek
Muddy Creek
Creek
Cottonwood Creek
Little Snake River
Baggs
Dixon
Savery
Snake River

R 86 W
R 85 W
T 20 N
T 19 N

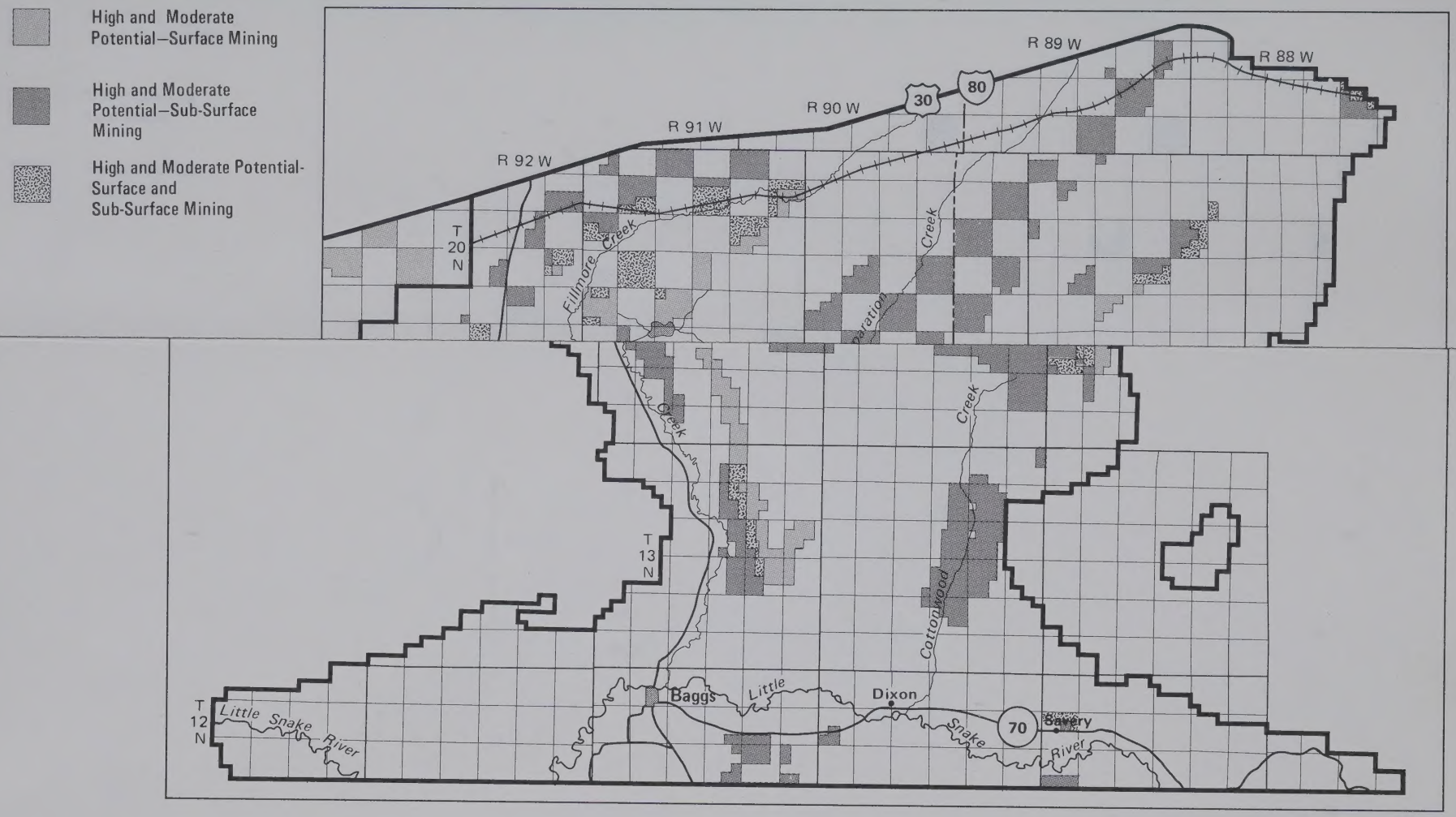
DIVIDE
BASIN
PU
80
Rawlins
Wamsutter
OVERLAND
PU
Sweetwater Co
Carbon Co

0 4 8
Scale in Miles

N

MAP O–1

LAND and COAL OWNERSHIP



MAP O–2

COAL DEVELOPMENT POTENTIAL

High and Moderate Potential—Surface Mining

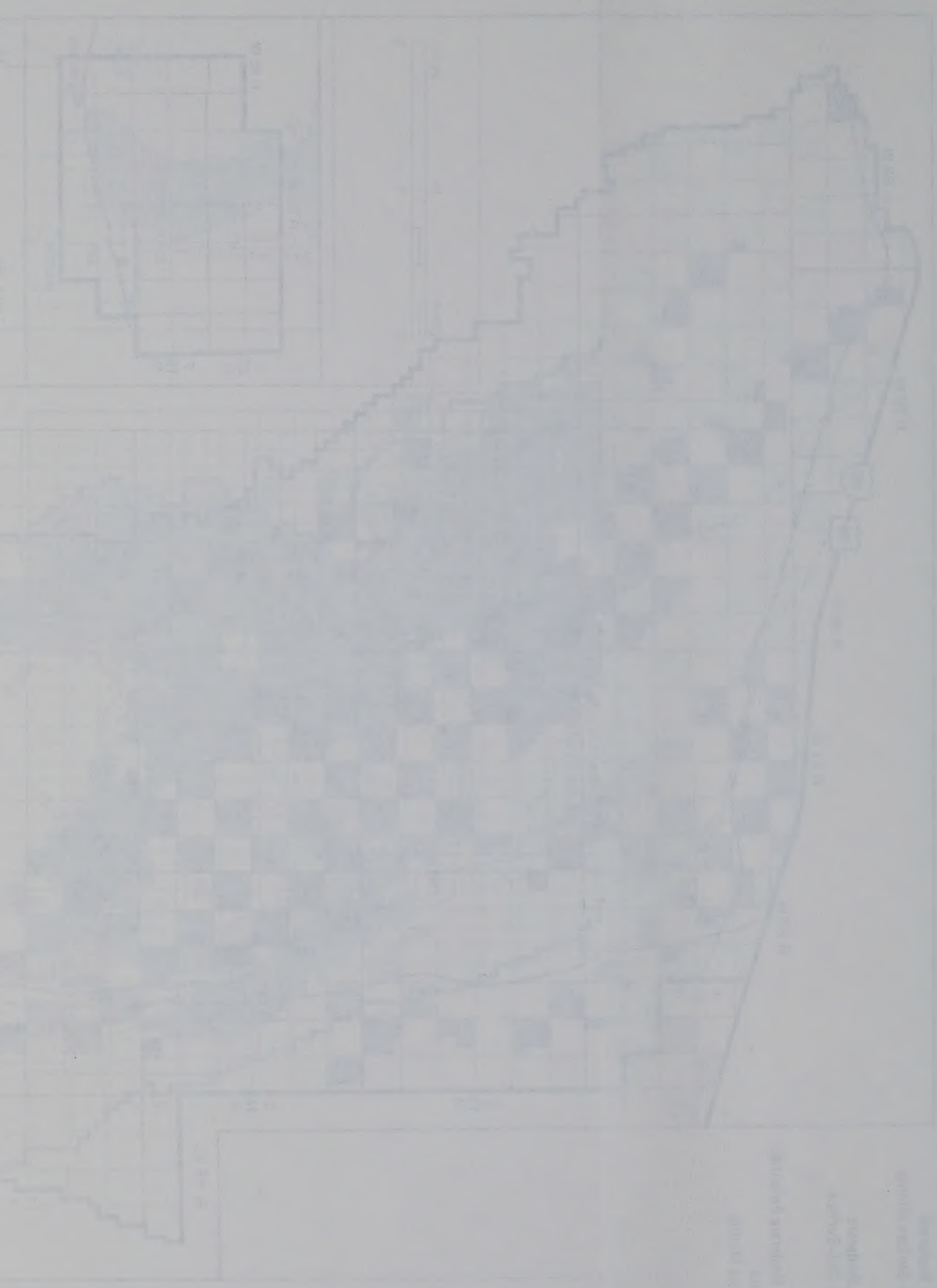
High and Moderate Potential—Sub-Surface Mining

High and Moderate Potential-Surface and Sub-Surface Mining

R 92 W
R 91 W
R 90 W
R 89 W
R 88 W
R 86 W
R 85 W
R. 93 W.
T 20 N
T 19 N
T 18 N
T 17 N
T 16 N
T 15 N
T 14 N
T 13 N
T 12 N
T 20 N
T 19 N
30
80
789
70
SWEETWATER COUNTY
CARBON COUNTY
Fillmore Creek
Separation Creek
Muddy Creek
Dry Cow Creek
Cow Creek
Wild Cherokee Creek
Little Snake River
Cottonwood Creek
Baggs
Dixon
Savery
Rawlins
Wamsutter
DIVIDE BASIN PU
OVERLAND PU
Sweetwater Co
Carbon Co
0 4 8
Scale in Miles

MAP O–2

COAL DEVELOPMENT POTENTIAL



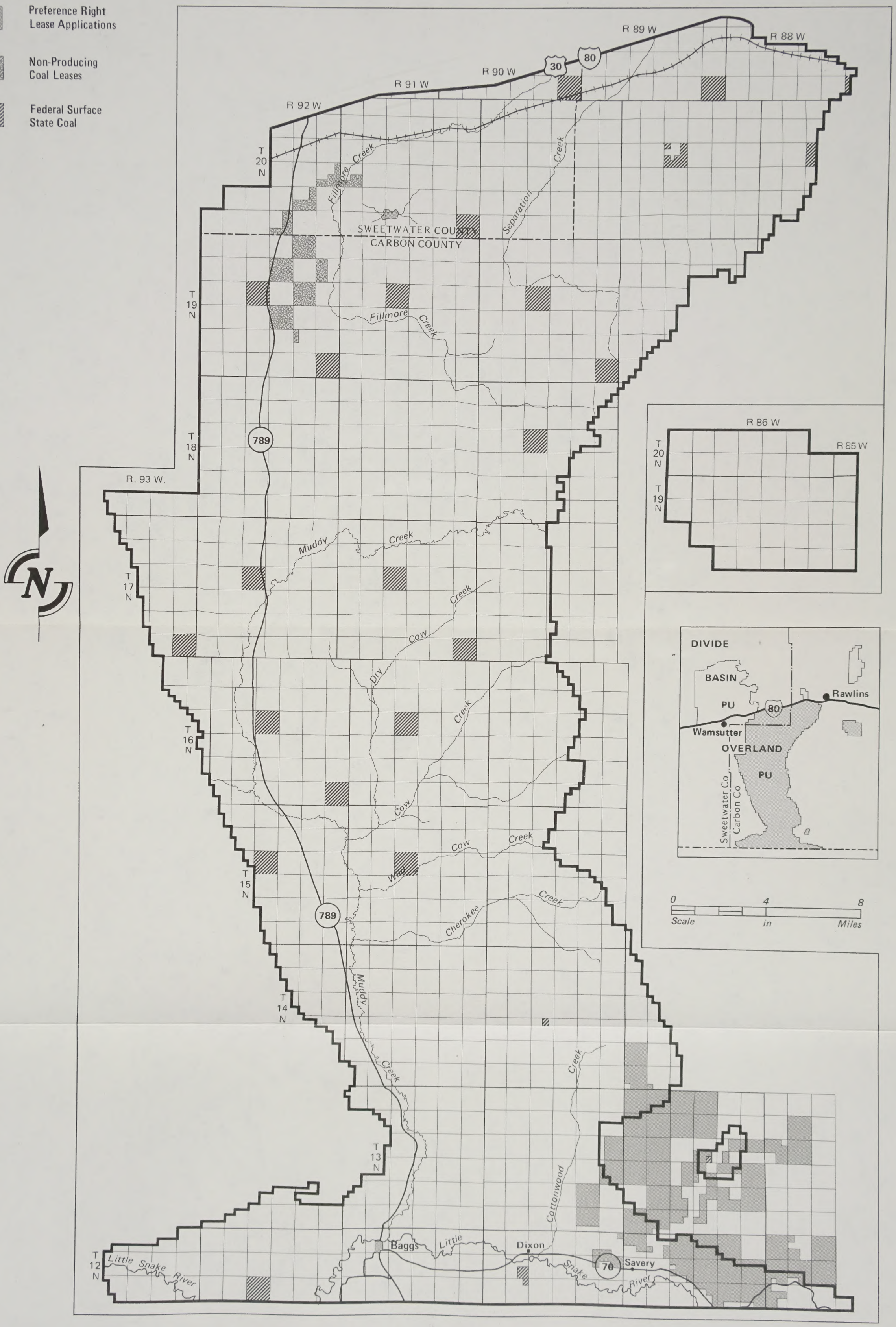
MAP O–3

PREFERENCE RIGHT LEASE APPLICATIONS, FEDERAL SURFACE–STATE COAL AREAS, and EXISTING NON–PRODUCING COAL LEASES

Preference Right Lease Applications

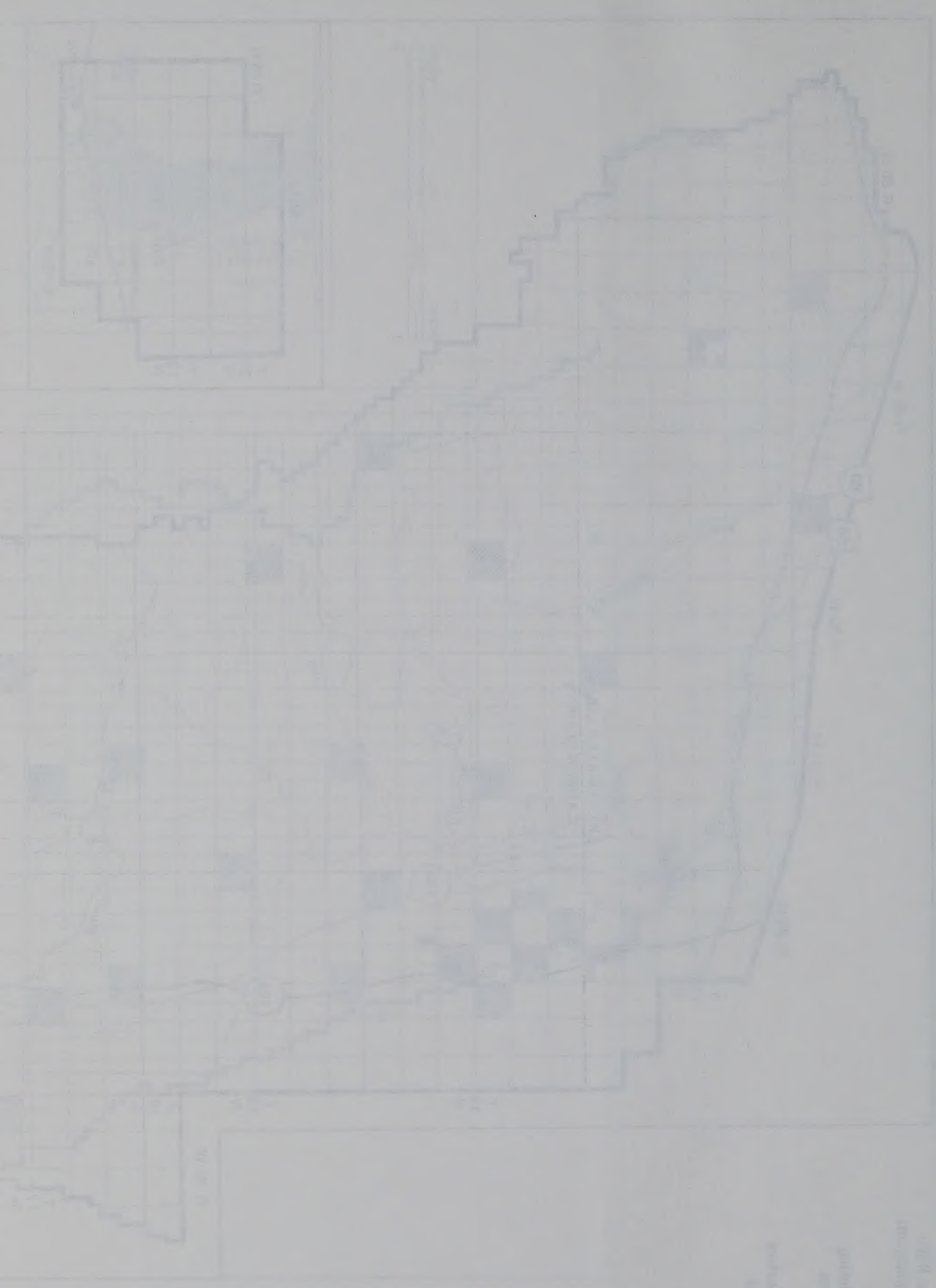
Non-Producing Coal Leases

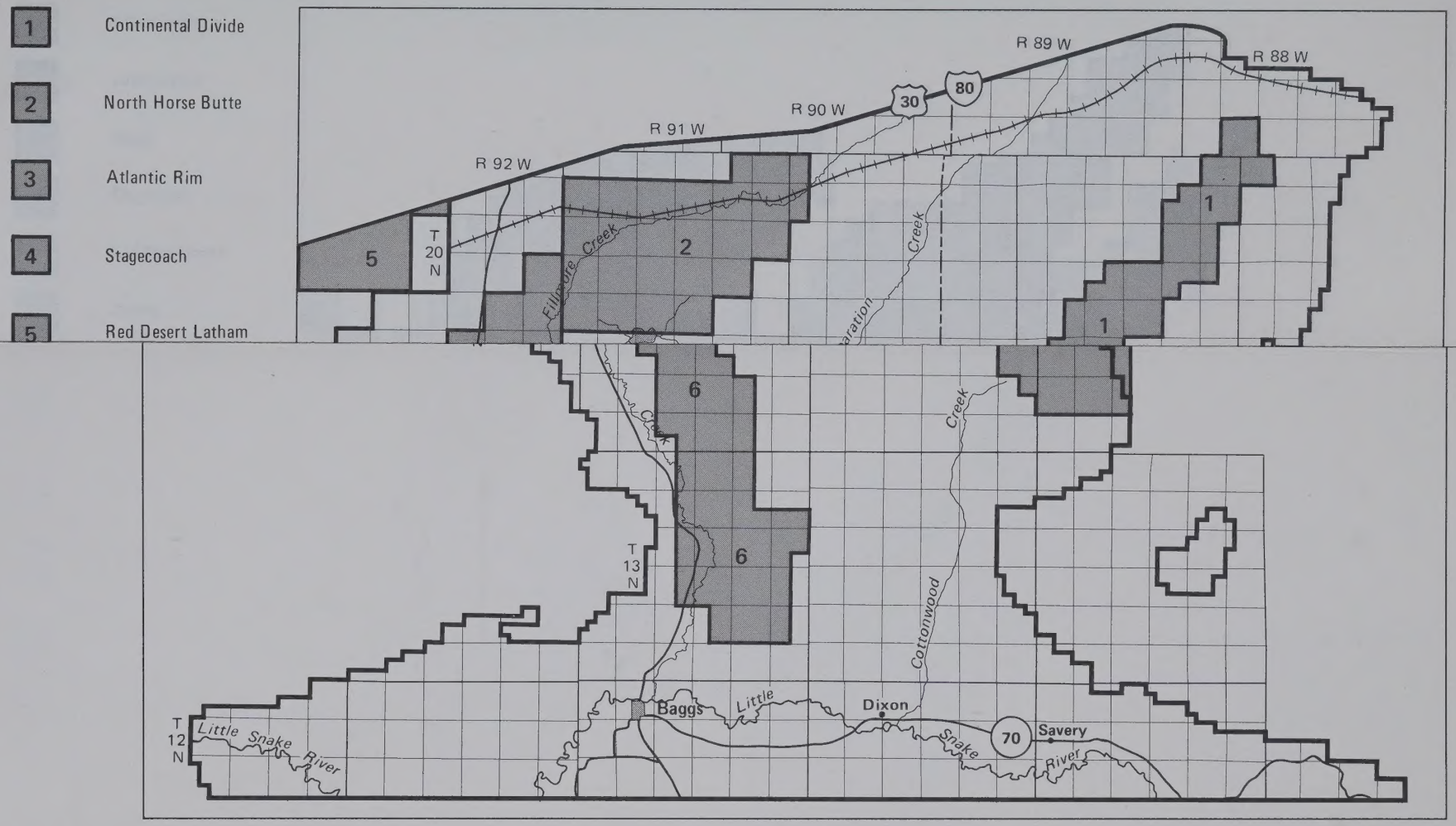
Federal Surface State Coal



MAP O–3

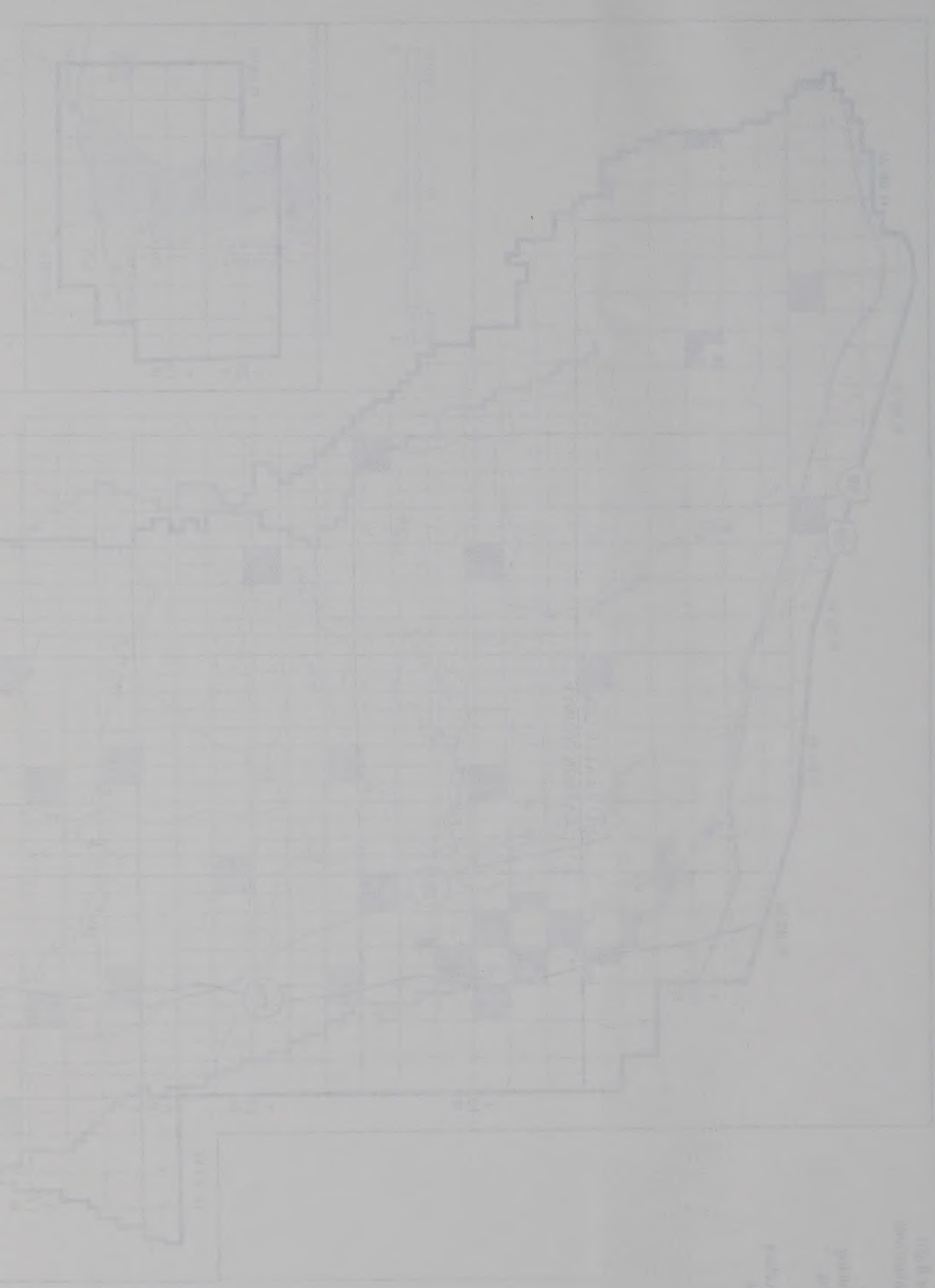
PREFERENCE RIGHT LEASE APPLICATIONS,
FEDERAL SURFACE–STATE COAL AREAS, and
EXISTING NON–PRODUCING COAL LEASES





MAP O–4

SURFACE COAL AREAS



1 Continental Divide

2 North Horse Butte

3 Atlantic Rim

4 Stagecoach

5 Red Desert Latham

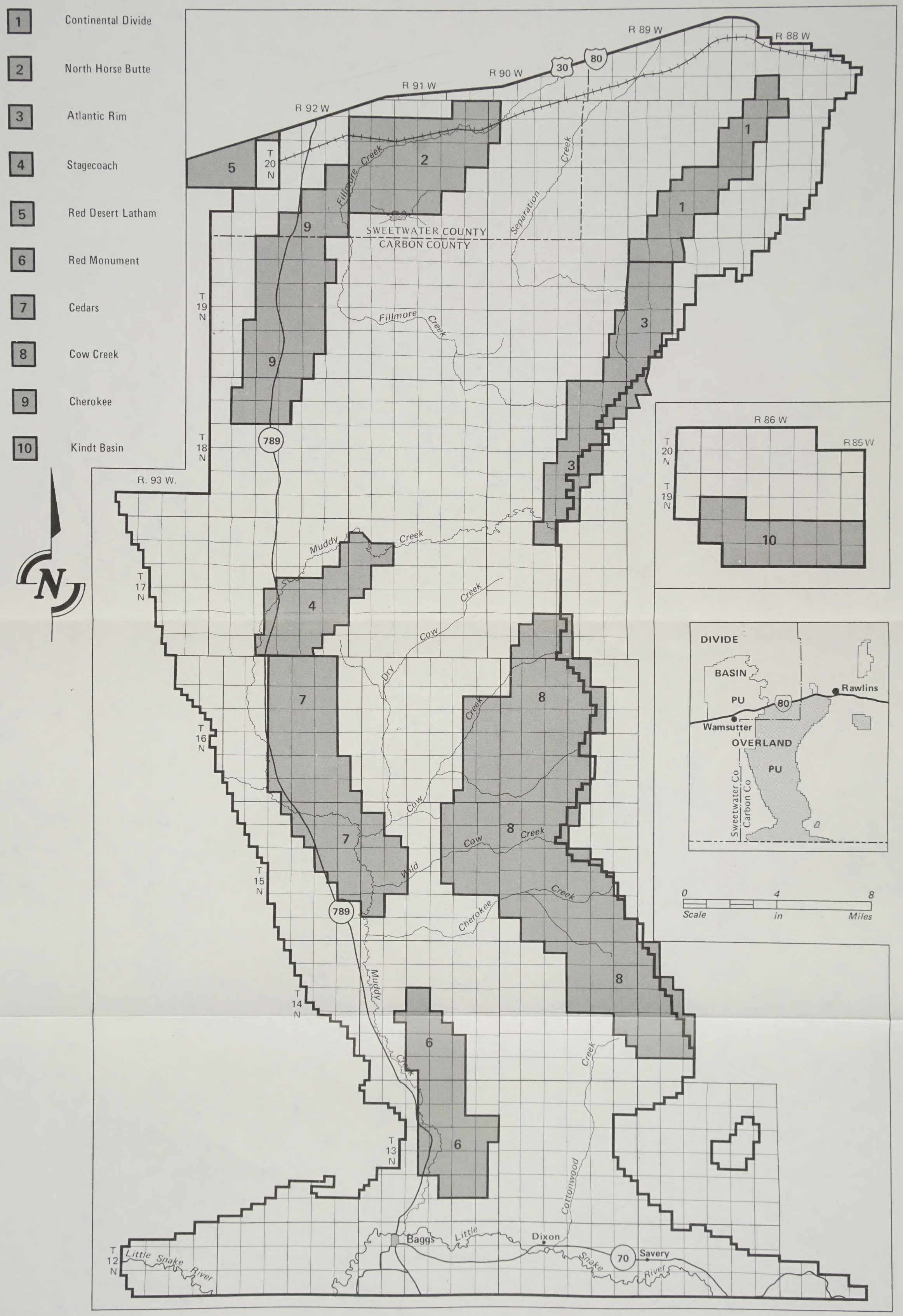
6 Red Monument

7 Cedars

8 Cow Creek

9 Cherokee

10 Kindt Basin



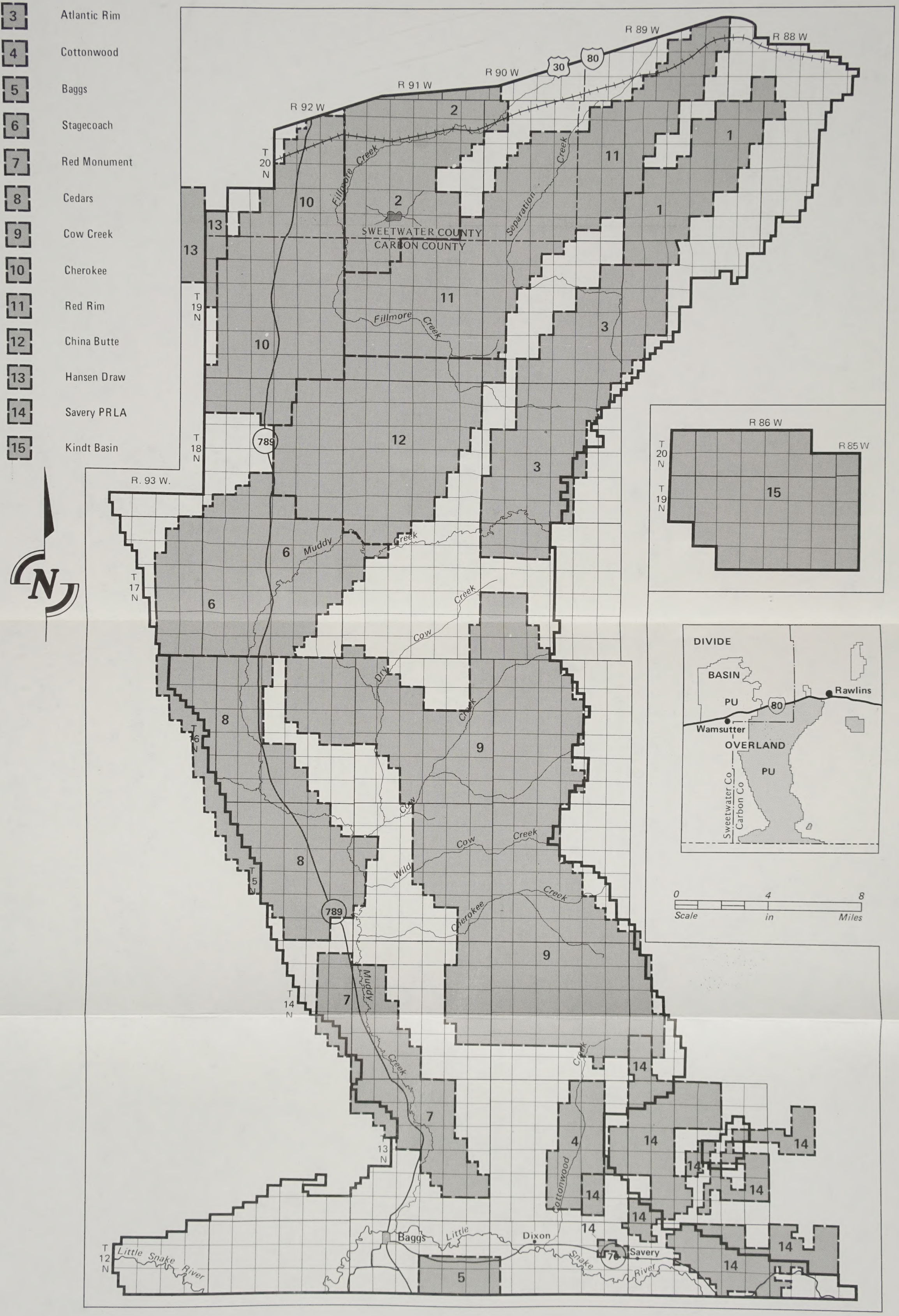
MAP O–4

SURFACE COAL AREAS

MAP O–5

SUB–SURFACE COAL AREAS

1 Continental Divide
2 North Horse Butte
3 Atlantic Rim
4 Cottonwood
5 Baggs
6 Stagecoach
7 Red Monument
8 Cedars
9 Cow Creek
10 Cherokee
11 Red Rim
12 China Butte
13 Hansen Draw
14 Savery PRLA
15 Kindt Basin



MAP O–5

SUB–SURFACE COAL AREAS

MAP O–6

FEDERAL COAL MANAGEMENT DECISIONS
SURFACE MINING (Competitive Coal Areas)

Unsuitable Areas (Criterion 16)

Unsuitable Areas (Criteria 2,3,7,11,13,14)

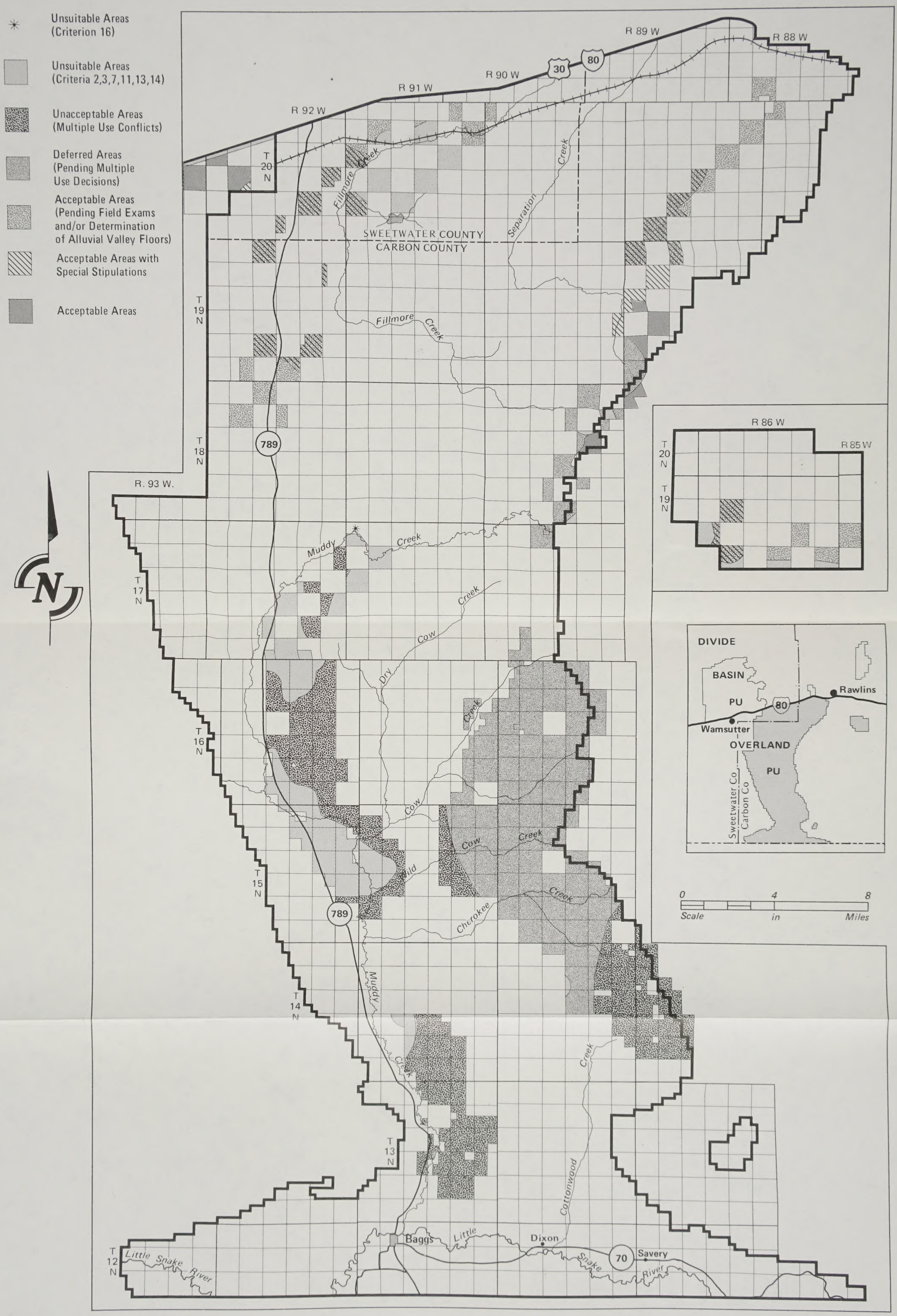
Unacceptable Areas (Multiple Use Conflicts)

Deferred Areas (Pending Multiple Use Decisions)

Acceptable Areas (Pending Field Exams and/or Determination of Alluvial Valley Floors)

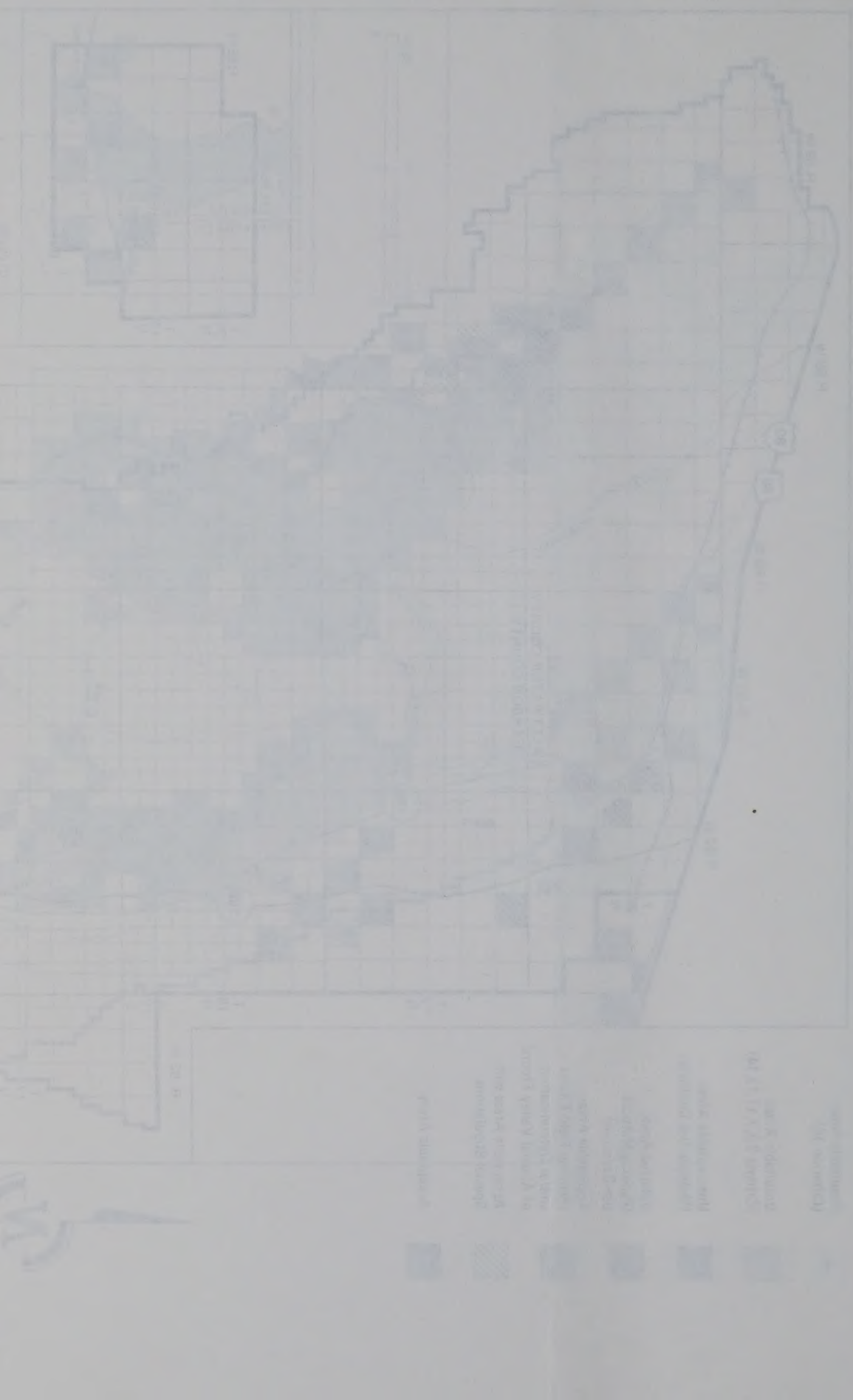
Acceptable Areas with Special Stipulations

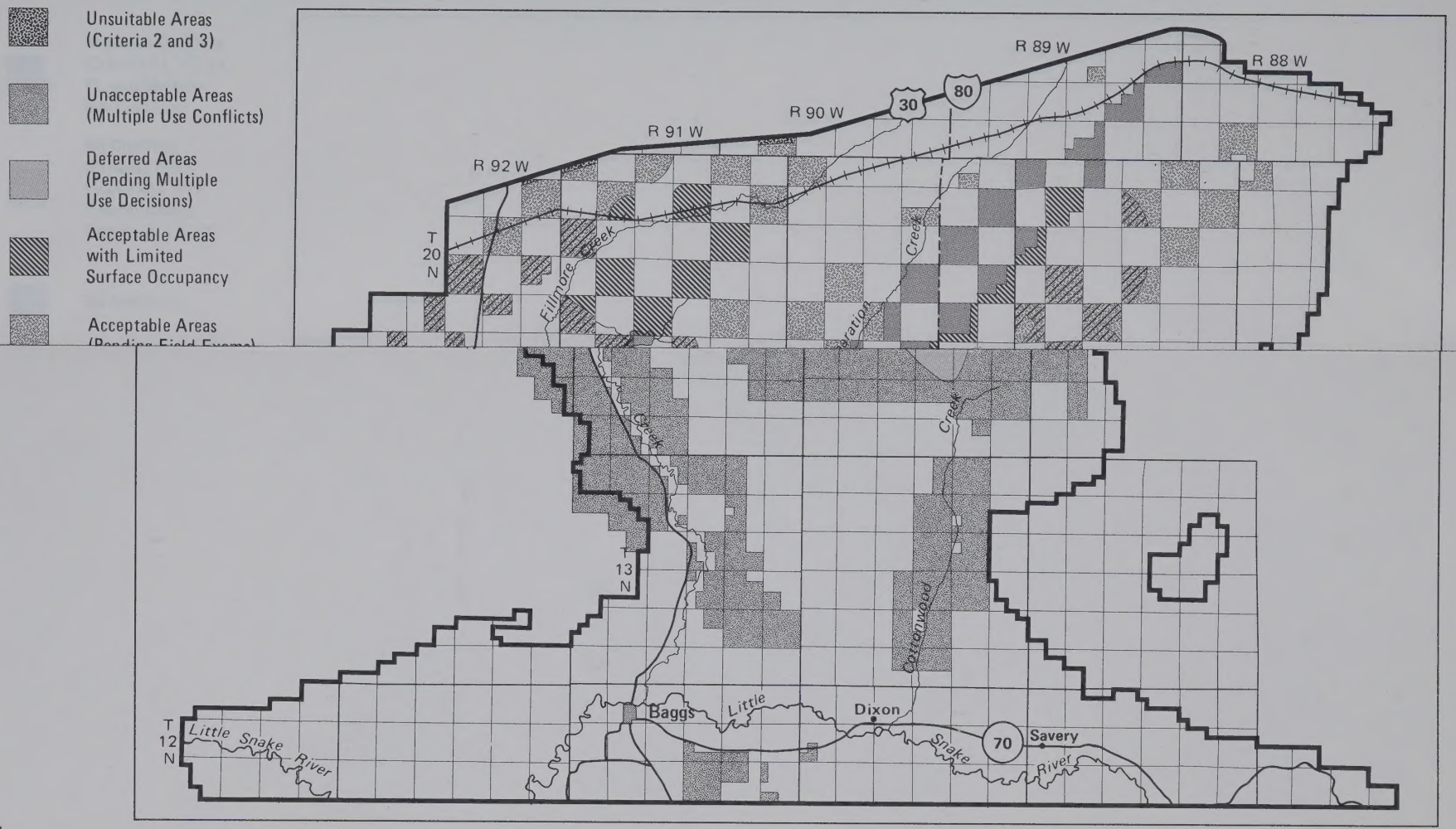
Acceptable Areas



MAP O–6

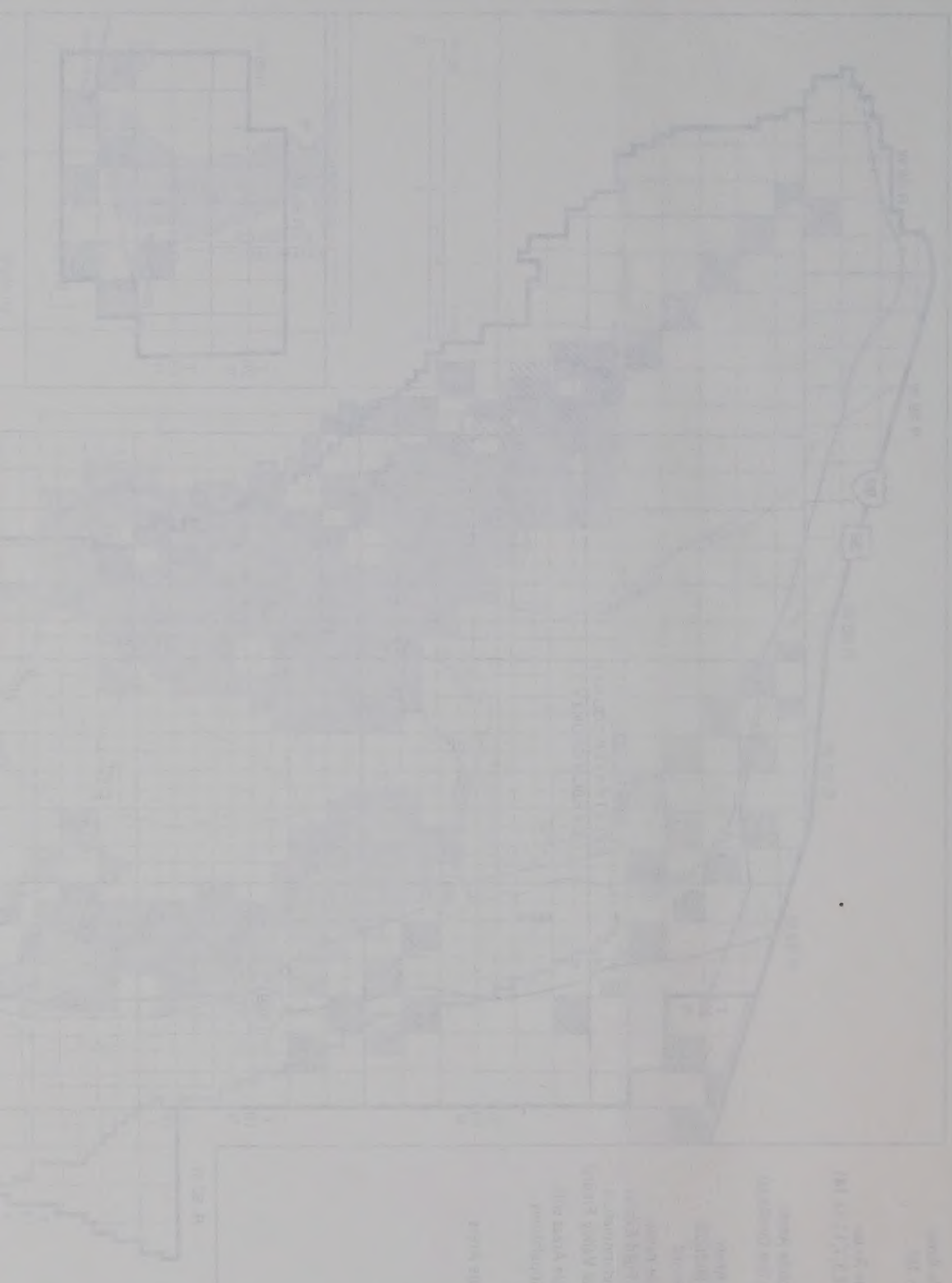
FEDERAL COAL MANAGEMENT DECISIONS
SURFACE MINING (Competitive Coal Areas)





MAP O–7

FEDERAL COAL MANAGEMENT DECISIONS:
SUB–SURFACE MINING (Competitive Coal Areas)



Unsuitable Areas
(Criteria 2 and 3)

Unacceptable Areas
(Multiple Use Conflicts)

Deferred Areas
(Pending Multiple
Use Decisions)

Acceptable Areas
with Limited
Surface Occupancy

Acceptable Areas
(Pending Field Exams)

Acceptable Areas with
Special Stipulations

Acceptable Areas

R 92 W
R 91 W
R 90 W
R 89 W
R 88 W
R. 93 W.
T 20 N
T 19 N
T 18 N
T 17 N
T 16 N
T 15 N
T 14 N
T 13 N
T 12 N
30
80
789
70
Fillmore Creek
Separation Creek
SWEETWATER COUNTY
CARBON COUNTY
Muddy Creek
Cow Creek
Dry Creek
Wild Cherokee Creek
Little Snake River
Baggs
Dixon
Savery
Cottonwood Creek

R 86 W
R 85 W
T 20 N
T 19 N

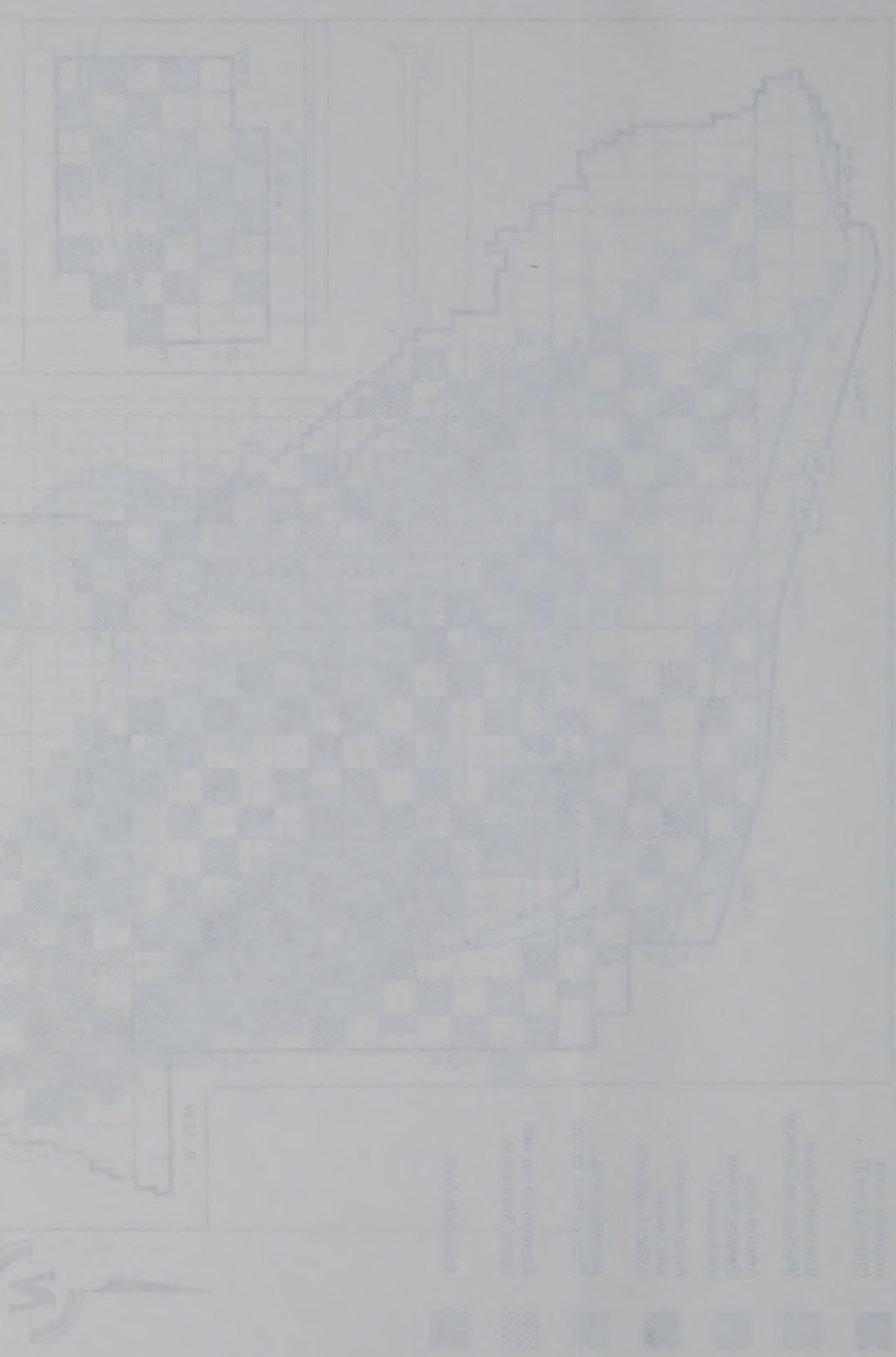
DIVIDE
BASIN
PU
Rawlins
80
Wamsutter
OVERLAND
PU
Sweetwater Co
Carbon Co

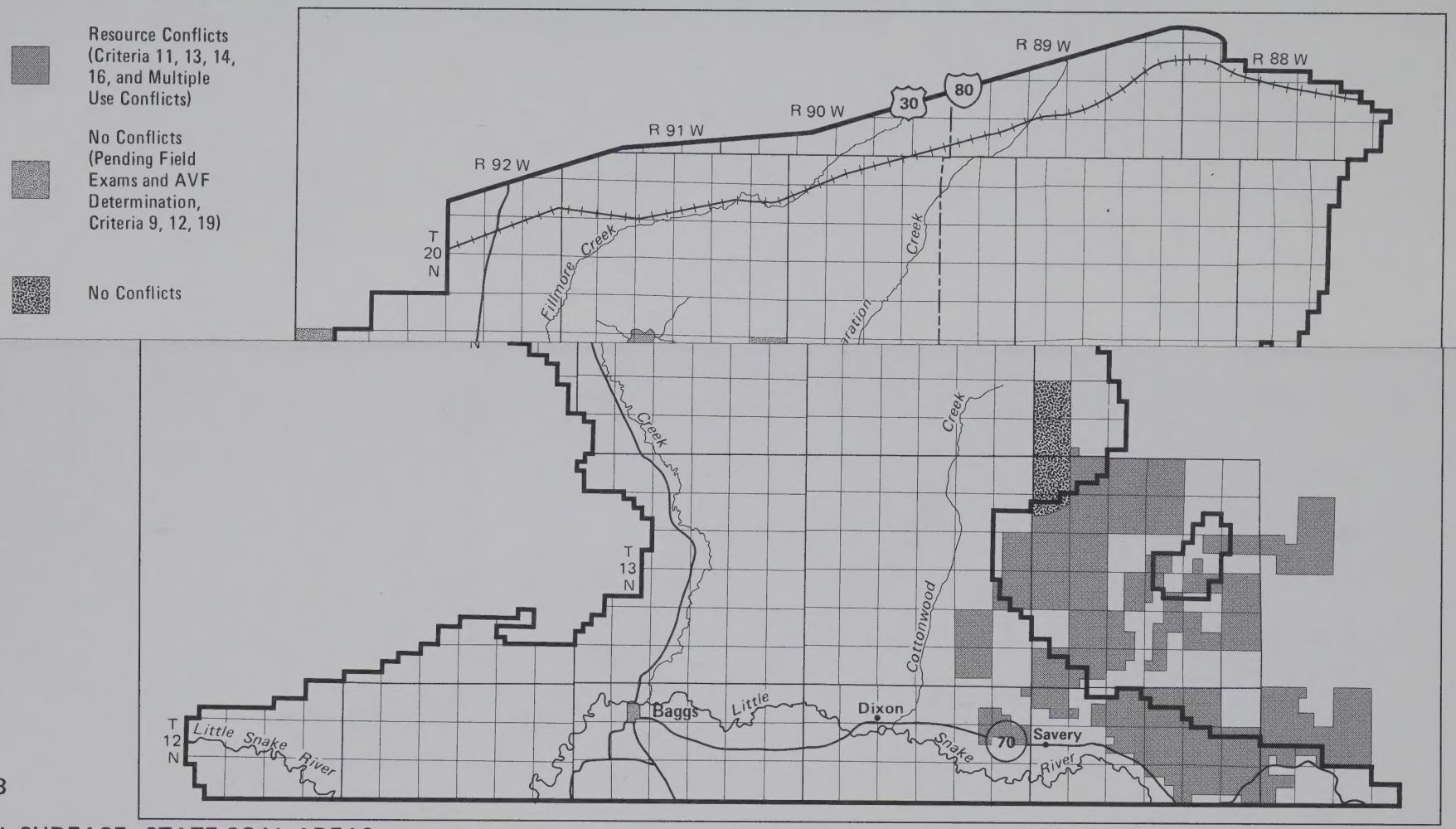
0 4 8
Scale in Miles

N

MAP O–7

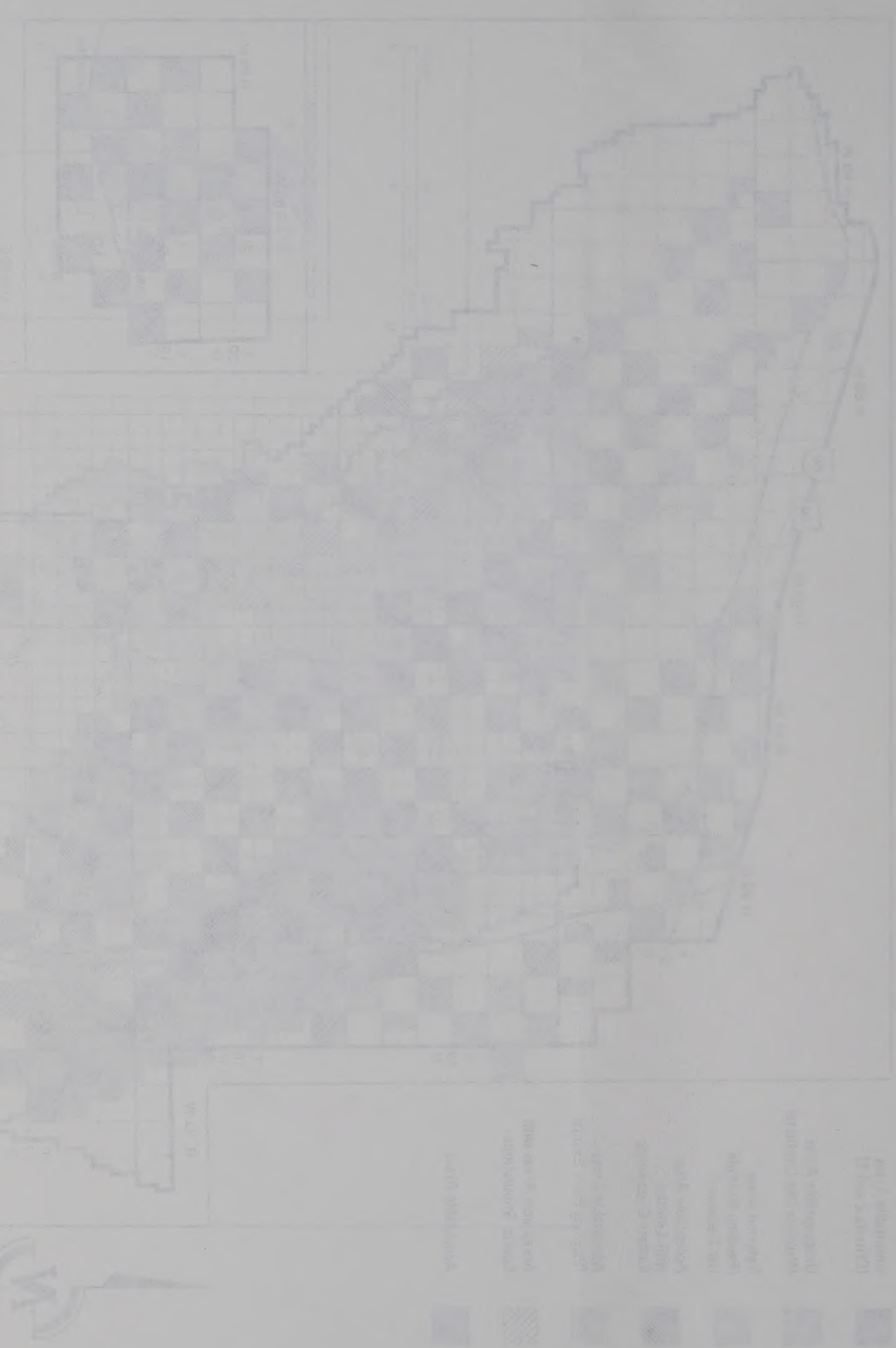
FEDERAL COAL MANAGEMENT DECISIONS:
SUB–SURFACE MINING (Competitive Coal Areas)





MAP O–8

FEDERAL SURFACE–STATE COAL AREAS,
NON–PRODUCING COAL LEASES, and PRLAs:
RESULTS OF COAL UNSUITABILITY REVIEW
and MULTIPLE USE CONFLICT EVALUATION



Resource Conflicts (Criteria 11, 13, 14, 16, and Multiple Use Conflicts)

No Conflicts (Pending Field Exams and AVF Determination, Criteria 9, 12, 19)

No Conflicts

R 92 W
R 91 W
R 90 W
R 89 W
R 88 W
R. 93 W.
R 86 W
R 85 W

T 20 N
T 19 N
T 18 N
T 17 N
T 16 N
T 15 N
T 14 N
T 13 N
T 12 N

30
80
789
70

SWEETWATER COUNTY
CARBON COUNTY

Fillmore Creek
Separation Creek
Muddy Creek
Dry Cow Creek
Cow Creek
Wild Cow Creek
Cherokee Creek
Little Snake River
Cottonwood Creek

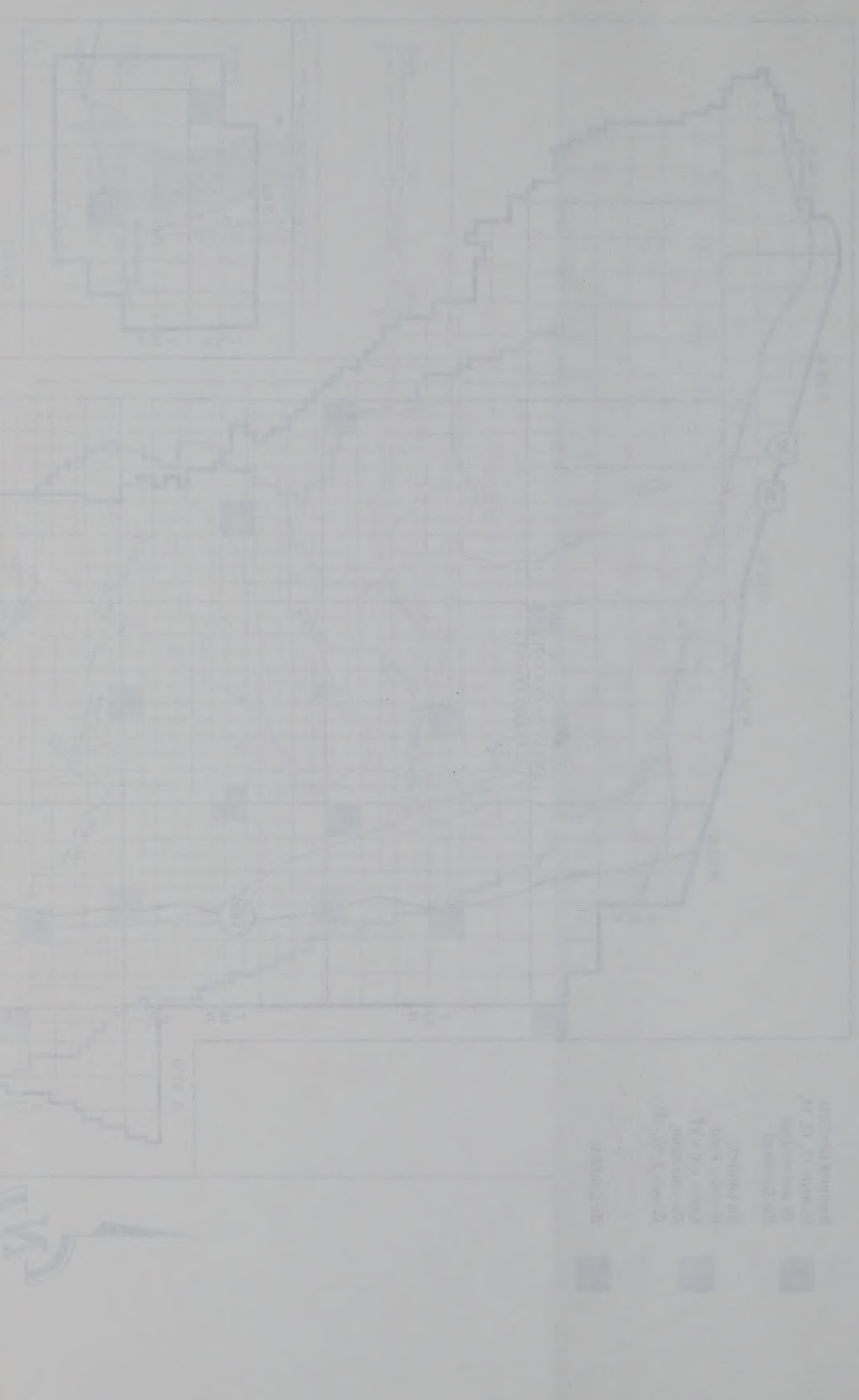
Baggs
Dixon
Savery
Rawlins
Wamsutter

DIVIDE BASIN PU
OVERLAND PU
Sweetwater Co
Carbon Co

0 4 8
Scale in Miles

MAP O–8

FEDERAL SURFACE–STATE COAL AREAS, NON–PRODUCING COAL LEASES, and PRLAs: RESULTS OF COAL UNSUITABILITY REVIEW and MULTIPLE USE CONFLICT EVALUATION



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